

# Alabama Forest Legacy Program Assessment of Need



Prepared by  
Alabama Forest Resources Center

# Alabama Forest Legacy Program Assessment of Need Document

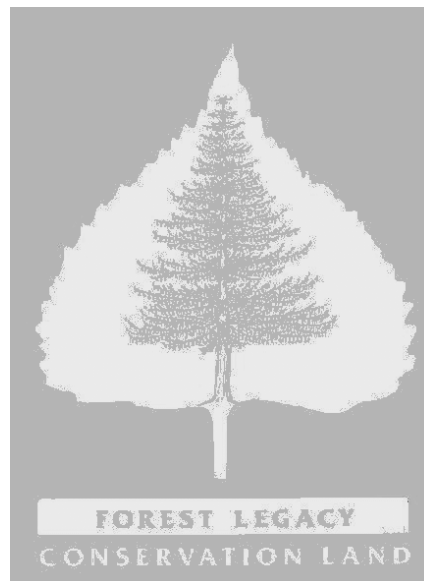
---

September 2002

Timothy C. Boyce, State Forester and Chairman,  
Alabama Forest Stewardship Advisory Committee

Dan Dumont, AFRC Executive Director, AON Coordinator,  
Chief Editor, and Steering Committee Chairman

Mark Bailey, Document Compilation and Research



ALABAMA FOREST RESOURCES CENTER  
169 DAUPHIN ST, SUITE 302  
MOBILE, AL 36602

## Table of Contents

Statement of Purpose .....	iv
Acknowledgements.....	v
Assessment of Need Document Steering Committee Members.....	v
Alabama Forest Stewardship Advisory Committee.....	vi
Alabama Forest Legacy Administrative & Screening Sub-Committee .....	vii
Introduction .....	1
The "Working Forest" Concept.....	1
Authorization and Implementation.....	1
Alabama's Forests .....	2
The Forest Resource .....	2
Historical Perspective .....	3
Current Use.....	5
Natural Diversity.....	7
Natural Communities.....	7
Rare Species.....	7
Topography, Geology, and Soils.....	9
Climate.....	12
Significant Watersheds .....	15
Recreation Opportunities .....	16
Cultural Resources .....	16
Mineral Resources .....	16
Timber Management Opportunities.....	17
Land Tenure.....	20
Forest Ownership.....	20
Characteristics of Forest Landowners.....	20
Forest Ownership Trends.....	21
Forest Resource Trends and Threats .....	22
Fragmentation of Ownerships .....	22
Restructuring of the Forest Industry.....	22
The Rise of Financial Owners .....	22
Cover Type Conversion .....	23
Sprawling Development/Population Growth.....	23

Projected Changes in Forests..... 26

Public Concern..... 27

Existing Programs to Conserve Forestlands..... 27

    State Programs ..... 27

    Non-government Programs..... 28

        Non-profit Land Trusts and Conservancies..... 28

        Forest Industry Programs..... 28

    State Laws, Regulations, and Tax Incentives ..... 29

Implementing Alabama's Forest Legacy Program ..... 29

    Background..... 29

    Public Participation ..... 30

        Important Issues..... 31

    Program Goals and Objectives ..... 32

    Landowner Participation: Application, Selection, Acquisition, and/or Development of Easements ..... 33

        Year 1 (FY 2002) Selection Procedure ..... 33

        Post-FY 2002 Selection Procedure..... 34

        Application Deadlines..... 35

        Parcel Eligibility Criteria ..... 37

Alabama Forest Legacy Areas with Descriptions ..... 39

    Forest Legacy Area Priority Counties Based on Census Data ..... 40

    Forest Legacy Strategic Focus ..... 41

    Lower Southwest Forest Legacy Area ..... 42

    Upper Southwest Forest Legacy Area ..... 43

    Southeast Forest Legacy Area ..... 44

    West Central Forest Legacy Area ..... 46

    North Central Forest Legacy Area ..... 47

    North Forest Legacy Area..... 48

Literature Cited ..... 49

Appendix B. Forest Legacy Law ..... 51

Appendix B. Forest Legacy Law ..... 52

Appendix C. Public Comment Process and Results ..... 55

Appendix D. Alabama Forest Legacy Application Form ..... 70



## Statement of Purpose

Of Alabama's 22.9 million acres of forestland, about 95 percent is privately owned. Many of these private forests, valued for so many resources and different objectives, are being developed for housing, retail and manufacturing, and infrastructure, and are also being subdivided into smaller and smaller parcels. Economic pressures on forest owners, such as escalating land values and estate taxes, lead to the conversion of rural areas into suburbs and suburban areas into extended towns and cities. Alabama's population increased by more than eight percent in the 1990s to 4.45 million people, and is projected by the U.S. Census Bureau to increase by another 17 percent by 2025. Although recent data shows an overall increase of forested area, the conversion to non-forest uses of large areas of Alabama's forests, including some of our more environmentally important forests, will continue as the state's population grows.

In 2000 Governor Siegelman appointed the Alabama Forestry Commission (AFC) as the state lead agency to develop and administer a Forest Legacy Program in Alabama (Appendix A). The purpose of the Forest Legacy Program (FLP) is to identify and protect environmentally important forest land from conversion to non-forest uses, through the use of conservation easements and fee purchases.

Guidelines for the Forest Legacy Program require the state lead agency to prepare an Assessment of Need (AON) to establish a state Forest Legacy Program in consultation with the Alabama Forest Stewardship Advisory Committee (AFSAC). With approval from the AFSAC, the AFC has contracted with the Alabama Forest Resource Center (AFRC), a nonprofit land trust organization that deals with conservation easements on working forests in Alabama, to administer the FLP. An Assessment of Need Steering Committee was appointed, which worked with AFRC to develop the AON document. The state grant option was selected for the AON, meaning all FLP acquisitions shall be handled by the state with title vested in the state. Landowner participation is entirely voluntary.

The AON Steering Committee divided the state into six Forest Legacy Areas, each with strategic Forest Legacy focus areas in need of conservation and long-term forest management. Under the Forest Legacy Program, Alabama will exercise both the option to purchase conservation easements and the option for fee purchases. As these resources are protected, many traditional values and uses of the forests will continue to be available. The AON represents a commitment to the conservation of all natural resources in Alabama, and can serve as an invaluable tool to focus attention on the conservation needs of Alabama's forest resource.

The following objectives were established to achieve the overall goal of protecting environmentally important private forestlands in Alabama threatened by conversion to non-forest uses under the FLP:

- Prevent conversions of forestlands to other uses.
- Preserve and protect fish and wildlife habitats, significant natural communities, and biological diversity.
- Preserve and protect riparian habitats.
- Preserve and protect water quality, fisheries, and water supplies.
- Preserve and protect natural beauty.
- Preserve and protect forest-based recreation opportunities.
- Preserve forestlands for current and future timber production.

As appropriate, periodic review and revision of this assessment will be made to meet the future needs of this program in Alabama.




---

Timothy C. Boyce, State Forester, Alabama Forestry Commission

## Acknowledgements

The Alabama Forestry Commission and the Alabama Forest Resources Center thank the following individuals for their many contributions throughout the Forest Legacy Assessment of Need document development process.

### *Assessment of Need Document Steering Committee Members*

<b>Wendy Allen</b> , Executive Director	<i>Cahaba and Black Warrior River Land Trust</i>
<b>Pete Conroy</b> , Director	<i>Environmental Policy &amp; Information Center at Jacksonville State University</i>
<b>Ted Devos</b> , Trust Forester, Wildlife Biologist	<i>Regions Bank</i>
<b>Ann Florie</b> , Executive Director, Regional Planner	<i>Region 2020</i>
<b>Dr. Katherine Flynn</b> , Associate Professor of Forest Ecology	<i>Auburn University School of Forestry and Wildlife</i>
<b>Gary Fortenberry</b> , President	<i>Alabama TREASURE Forest Association</i>
<b>Jill A. Gardner</b> , Executive Director	<i>Land Trust of Huntsville and North Alabama</i>
<b>Jim Gooder</b> , Forest Supervisor	<i>USDA Forest Service - National Forests of Alabama</i>
<b>Steve Guy</b> , Director, Forestry & Environmental Affairs Division	<i>Alabama Farmers Federation</i>
<b>Keith Guyse</b> , Assistant Chief, Wildlife & Freshwater Fisheries	<i>Alabama Department of Conservation &amp; Natural Resources</i>
<b>Jerry Johnson</b> , State Staff Forester	<i>Natural Resources Conservation Service</i>
<b>Rhett Johnson</b> , Director, <i>Solon Dixon Forestry Education Center</i>	<i>Auburn University</i>
<b>Keville Larson</b> , Landowner, Consulting Forester	<i>Larson and McGowin</i>
<b>Greg Lein</b> , Director, ADCNR State Lands Division Natural Heritage Section	<i>Alabama Department of Conservation &amp; Natural Resources</i>
<b>Bob McCollum</b> , Coordinator, Nongame Wildlife Program	<i>Alabama Department of Conservation &amp; Natural Resources</i>
<b>John McGuire</b> , Outreach Coordinator, The Longleaf Alliance	<i>The Longleaf Alliance</i>
<b>Brad McLane</b> , Director	<i>Alabama Rivers Alliance</i>
<b>Jim Moore</b> , Chief, Office of Education and Outreach	<i>Alabama Department of Environmental Management</i>
<b>Chris Oberholster</b> , Director of Conservation Programs	<i>The Nature Conservancy of Alabama</i>
<b>Fred T. Stimpson</b> , Forester, Landowner	<i>Coastal Land Trust</i>
<b>Vaughan Stough</b> , Landowner, Timber Investment Manager	<i>McDonald Investment Company, Inc.</i>
<b>Dr. Larry Teeter</b> , Director	<i>Auburn University Forest Policy Center</i>
<b>Ken Wills</b> , Forest Ecologist	<i>Jefferson County Health Department</i>

## *Alabama Forest Stewardship Advisory Committee*

<b>Timothy C. Boyce</b> , State Forester, Chairman	<i>Alabama Forestry Commission</i>
<b>Jerry Lacey</b> , Commissioner	<i>Alabama Forestry Commission</i>
<b>Corky Pugh</b> , Director, Wildlife & Freshwater Fisheries	<i>Alabama Department of Conservation &amp; Natural Resources</i>
<b>Mark Easterwood</b> , Acting Director, State Parks	<i>Alabama Department of Conservation &amp; Natural Resources</i>
<b>Steve Guy</b> , Director, Forestry & Environmental Affairs Division	<i>Alabama Farmers Federation</i>
<b>John McMillan</b> , Executive Director	<i>Alabama Forestry Association</i>
<b>Matt Bowden</b> , Member	<i>Alabama Forest Resources Center</i>
<b>James Malone</b> , Executive Director	<i>Alabama TREASURE Forest Association</i>
<b>Tim Gothard</b> , Executive Director	<i>Alabama Wildlife Federation</i>
<b>Bruce Hamrick</b> , Chairman, Walker County Commission	<i>Alabama Association of County Commissions</i>
<b>Dr. Virginia Caples</b> , Professor, 1890 Administrator, Alabama A&M Univ.	<i>Alabama Cooperative Extension Service</i>
<b>Pete Conroy</b> , Director	<i>Environmental Policy &amp; Information Center at Jacksonville State University</i>
<b>Lehman Bass</b> , Consulting Forester	<i>Green South Land &amp; Timber Company</i>
<b>Pat Byington</b> , Co-director	<i>Alabama Urban Forestry Association</i>
<b>Arione Irby</b> , Chairman	<i>State Forester's Outreach Advisory Council</i>
<b>Keith Tassin</b> , Director of Science & Stewardship	<i>The Nature Conservancy of Alabama</i>
<b>David Barrow</b> , District Conservationist, Montgomery County	<i>USDA Natural Resources Conservation Service</i>
<b>Joan Grider</b> , Chief, Conservation & Price Support Program	<i>USDA Farm Services Agency</i>
<b>Jim Gooder</b> , Forest Supervisor	<i>USDA Forest Service - National Forests of Alabama</i>

## *Alabama Forest Legacy Administrative & Screening Sub-Committee*

Members represent the board of directors of the Alabama Forest Resources Center, which has been appointed as a subcommittee of the Alabama Forest Stewardship Advisory Committee (AFSAC) to administer the FLP in Alabama and make recommendations to the AFSAC and State Forester regarding the value of tracts.

<b>Art Dyas</b> , President	Alabama Forest Resources Center and Southeastern Natural Resources, Inc.
<b>Senator Ann Bedsole</b> , President	MWS Land Company
<b>Matt Bowden</b> , Attorney	Balch & Bingham
<b>Dr. Richard Brinker</b> , Dean	Auburn University School of Forestry
<b>Pat Byington</b> , Environmentalist	Southern Environmental Center
<b>Gay Dewitt</b> , Forester	Boise Cascade
<b>Ted DeVos</b> , Trust Forester/Wildlife Biologist	Regions Bank Trust Department
<b>David Frederick</b> , Forester	Alabama Forestry Commission
<b>Tim Gothard</b> , Forester, Executive Director	Alabama Wildlife Federation
<b>Tom Kelly</b> , Forester	Scott Paper Company (retired)
<b>Jessica Little</b> , Consultant	Larson & McGowin, Inc
<b>James Malone</b> , Forester; Executive Director	TREASURE Forest Association
<b>Dr. Jeff McCollum</b> , Landowner	Alabama Forest Resources Center
<b>John McMillan</b> , Executive Vice President	Alabama Forestry Association
<b>John McNeil</b> , Vice President	McNeil, Jackson, and Ahrens
<b>William H. Stimpson</b> , Forester, Chairman	Gulf Lumber Company (retired)
<b>Ed Travis</b> , Forester, Appraiser	Edward F. Travis Company
<b>Bestor Ward</b> , Real Estate Broker	Ward Properties
<b>Harold Winger</b> , Forester	International Paper (retired)
<b>Montgomery Woods</b> , President	Hamilton Woods Veneer

---

### ***Forest Legacy AON Coordinator, Chief Editor, and Steering Committee Chairman***

**Dan Dumont**, Executive Director *Alabama Forest Resources Center*

### ***AON Document Compilation and Research***

**Mark Bailey**, Director *Conservation Services Southeast*



## Introduction

### *The "Working Forest" Concept*

Approximately 95% of Alabama's 23 million forested acres are in private ownership. The environmental, cultural, and economic benefits these diverse and abundant forested lands provide to the people of the state are enormous. Alabama's forests contain significant and biologically diverse natural communities, they provide ecosystem services such as watershed and air quality protection, and they have significant cultural, recreational, economic, and spiritual value to Alabamians. Long-term protection and stewardship is needed for many forest areas that possess such significant values. For purposes of this document, the term "working forests" encompasses all benefits and values healthy forests provide.

Alabama's growing and expanding population is placing pressures on landowners to convert their forestlands to other uses that are in conflict with important natural resource values and benefits. Fragmentation and the conversion of forestlands to other uses pose serious threats to the integrity and traditional values and uses of many privately owned working forests. The Forest Legacy Program is a voluntary mechanism to help protect forest-based benefits and values for current landowners and future generations.

### *Authorization and Implementation*

To promote long-term integrity of forestlands, Congress established the Forest Legacy Program (FLP) as part of the Food, Agriculture, Conservation, and Trade Act of 1990 (Appendix B). The Federal Agricultural Improvement and Reform Act of 1996 authorizes the Secretary of Agriculture, at the request of a state, to award grants for the state to carry out the FLP, including acquisition of lands and interests in lands. The stated purpose of the FLP is to protect, through purchase of conservation easements and fee-simple acquisitions, environmentally important privately-owned forest areas that are threatened by conversion to non-forest uses. For purposes of the Alabama FLP, environmentally important forests are defined by the possession of one or more of the following attributes:

- (1) contains globally, regionally, or nationally significant concentrations of biodiversity values;
- (2) consists of rare, threatened, or endangered ecosystems;
- (3) provides critical ecological functions (e.g., watershed protection); or
- (4) offers cultural, ecological, economic, or spiritual significance to the local community.

To participate in the FLP, each state must develop an Assessment of Need (AON), which identifies important forestlands, called Forest Legacy Areas (FLAs), in need of long-term protection and management. The maximum federal contribution for total program costs may not exceed 75 percent. Twenty-five percent of FLP costs may consist of matching funds or in-kind contributions from non-federal sources.

The Alabama Forestry Commission (AFC) is the lead agency for the FLP in Alabama. AFC contracted with the Alabama Forest Resources Center (AFRC), a nonprofit land trust organization that deals with conservation easements on working forests in Alabama, to develop and administer the FLP. This AON was developed in accordance with Guidelines for Implementation of the Forest Legacy Program, USDA Forest Service State and Private Forestry Cooperative Forestry, dated August 15, 1996, and in consultation with the State Forest Stewardship Program.

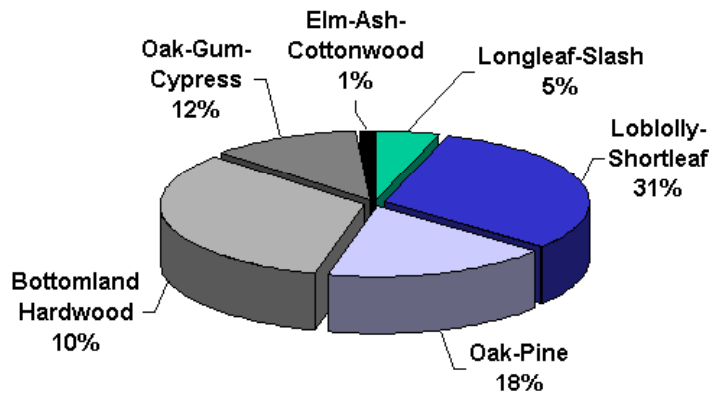
The USDA Forest Service is available to work with states and private forest landowners to protect and manage environmentally important forest resources under the FLP through conservation easements or fee title transfers. Through the use of easements, landowners may continue to manage and use their lands in a manner compatible with the resources they are protecting without giving up ownership. It should be emphasized that landowner participation in FLP, including the sale of lands and interests in lands, is entirely voluntary.

Eligibility of tracts of forestland for the FLP will be determined by a multi-step process involving the forestry and wildlife conservation community, state and federal agencies, and the general public. The primary objective will be the protection of forest tracts threatened by conversion to non-forest uses and focusing on important biologically diverse, recreation-rich, ecologically significant, and scenic areas in a context of the "working forest" land concept. The following resource analyses will form the backdrop and core data needed to develop Alabama's Forest Legacy Program.

## **Alabama's Forests**

### *The Forest Resource*

Alabama's 22.9 million acres of forestland cover two-thirds of the land area of the state. According to the U.S. Forest Service (Hartsell and Brown, 2001), these forests are 45 percent oak, 36 percent pine, and 18 percent mixed oak-pine (Figure 1). Longleaf pine, slash pine, loblolly pine, and shortleaf pine are the principal softwood species. Plantations comprised 24 percent of the timberland in 2000, with loblolly pine being the principal planted tree. From 1990 to 2000, hardwood forest area increased by 7 percent, and the area in pine stands (natural and planted) rose 9 percent. Dozens of hardwood species are present, with predominant representatives including oaks and hickories of several species, sweetgum, and yellow poplar. Pine-dominated forests are most prevalent in the Coastal Plain, but occur in all regions. Although 5.5 million acres of forest or former agricultural land have been converted to pine plantations, many areas that historically were dominated by pines have succeeded to hardwoods as a result of fire suppression.



**Figure 1. Alabama's Major Forest Types, 2000**

### *Historical Perspective*

The southeastern part of the North American continent has been forested for many millions of years. Forested swamps eventually became the coal deposits mined today. The early forests of club mosses and ferns were replaced by relatives of pines and cypress, and finally by mixed forests of evergreen and broad-leaved deciduous trees. About 20,000 years ago, when glaciers were not far from present-day Alabama, boreal forests of hemlock and fir predominated in the northern part of the state.

Around 12,000 years ago, the climate was still considerably cooler than it is today, and forests were dominated by beech and maple. It was at this time that the first people, the Paleo Indians, migrated into the South. By 7,000 years ago, a warmer and drier climate supported the oak-hickory and pine forest that has persisted to modern times. People made use of the forest for food, shelter, medicine, and tools. By 3,000 years ago, the Woodland culture was clearing patches of land for agriculture, which allowed them to settle for longer periods in an area (and therefore exert greater influence on the forest). Fire came into regular use as a tool to maintain openings, clear underbrush, enhance game forage, and a variety of other purposes. Because Native American settlements were frequently moved, their impact on the forest created a gradually changing mosaic of forest age, type, and condition.

When botanist William Bartram traveled through parts of Alabama and the Southeast in the late 1700s, he described "grassy savannas of scattered longleaf pines, abundant cane, and narrow groves of hardwood forest on the banks of streams" in the Coastal Plain. Fire, whether set by Native Americans or lightning-caused, clearly played a tremendous role in maintaining the vast longleaf pine forest of the region.

English naturalist Philip Henry Gosse visited Alabama in the late 1830s and described the "dense wall of towering trees" surrounding villages and plantations, and Black Belt prairies so free of trees that they resembled "clearings made by the axe of the settler" (Gosse, 1859). He wrote of the virgin deciduous forest of Dallas County: "There is inexpressible grandeur in these primeval forests. Many of the trees are of immense magnitude, and their trunks rise like pillars from the soft and damp soil, shooting upward

in columnal majesty...And thus we see the original forest. The ground is commonly clear of underwood to a remarkable degree, so that it is by no means unusual for hunters to pursue their game on horseback at full speed through these sylvan recesses."

Although Native Americans frequently modified the forest for agriculture, large-scale exploitation of Alabama's forestlands for timber and agriculture began with the immigration of European settlers to Alabama in the early 1800s. The rise of a strong agricultural economy reduced the state's forestlands significantly. Gosse recorded the changing landscape in the 1830s, reporting fields of girdled and dead trees "so thickly spread over the land [that they] look[ed] like an army of skeletons stretching their gaunt, white arms." With the advent of agriculture, cleared land was often worth more than forested land, and by the early 1900s, much of the original forest had been cleared of trees.

After 1850, railroads began rapidly expanding in the South, and they consumed vast quantities of wood for ties, cars, fuel, bridges, and trestles. Each mile of track required over 2,500 crossties that had to be replaced every five to seven years (Burdette, 1995). Much of the timber produced in Alabama before the Civil War was milled into lumber for local use. After the war, reconstruction of damaged and destroyed buildings and infrastructure increased the demand for lumber and the number of sawmills multiplied. Depleted forests in the Northeast also created markets for southern timber.

The rich, vast stands of centuries-old longleaf pine drew the nation's lumber industry to Alabama and the Southeast. By the 1880s, sawmills were the dominant industry in the South (Burdette, 1995). Narrow gauge tram lines, improvements in steam-powered sawmill machinery, and other technological advances hastened the liquidation of Alabama's standing timber. "Cut out and get out" logging practices were widespread and wasteful.

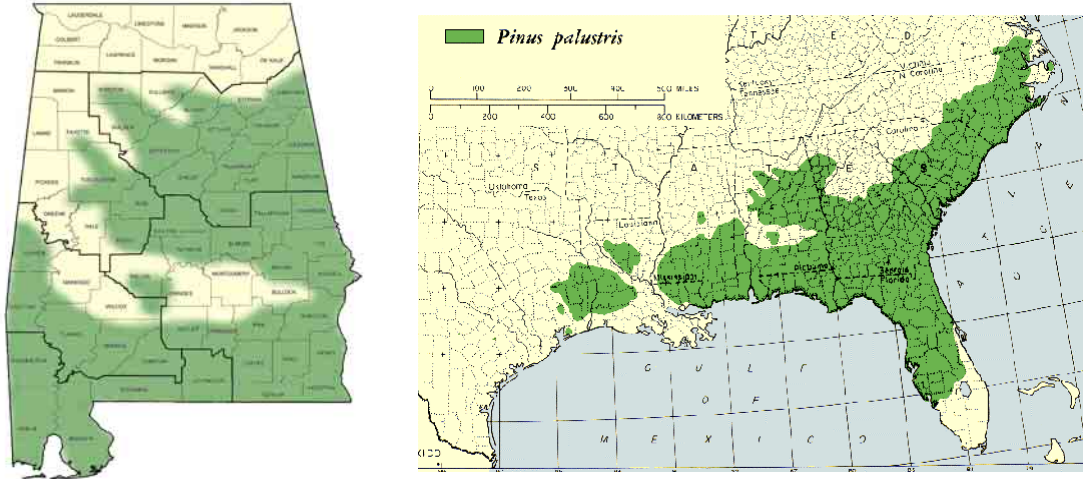
By the late 1920s the old-growth forests were virtually gone, and millions of acres were cleared or degraded. Concern for the future of Alabama's forest was growing, and the Alabama Forestry Commission was established primarily as a fire control agency. Fire control, along with laws passed to eliminate free ranging livestock, encouraged the regeneration of Alabama's forests.

In the 1930s the Agricultural Conservation Program (ACP) was established to assist farmers in converting marginal farmlands to forestlands. Also during this period, the U.S. Forest Service began purchasing lands. Most lands acquired by the government were "worthless," worn-out farmland or cut-over and burned former forestland. The Civilian Conservation Corps (CCC) planted hundreds of thousands of trees on these lands and created recreation sites.

After the Second World War, the pulp and paper industry grew rapidly in Alabama, taking advantage of the under-utilized native pines and low-grade hardwoods. During the next 40 years, industry purchased large tracts of forestland to intensively manage for wood fiber to satisfy future raw material demand. During this same period, agricultural areas were abandoned and fire control was improved, resulting in many old fields reverting back to forest.

Human activities have altered Alabama's forested landscapes far more than the casual observer would suspect. In age structure, appearance, and species composition,

today's forest is very different from that described by early European settlers. The American chestnut blight in the early 1900s virtually extirpated a dominant and valuable species and drastically changed Alabama's deciduous forests. As described above, longleaf pine was the backbone of the early timber industry in the southern part of the state. The once-vast longleaf forests of Alabama and adjacent states (Figure 2) are now reduced to a fraction of their former extent. While longleaf as a species is still common, functioning (i.e., periodically burned) longleaf ecosystems and certain plants and animals that depend upon them are becoming threatened.



**Figure 2. Range of Longleaf Pine in Alabama and the Southeastern U.S.**

From W. B. Critchfield & E. L. Little, Jr., *Geographic Distribution, of the Pines of the World*,  
USDA Forest Service Misc. Publication 991, 1966

### *Current Use*

Today, most of Alabama's private forestlands are maintained with economic return from sale of timber as either a primary or secondary objective. Other major uses of private forestlands are as habitat for native game species and for hunting. The majority of owners have no established plan for managing their forestlands. Although many do not consider the need for a management plan until they decide to harvest timber, growing numbers of owners have multiple management objectives and actively seek technical assistance for managing their lands.

Alabama's forests and the industry they support contribute in excess of \$5 billion to the state's annual economy, and Alabama's forest industry directly provides employment for 66,800 people. The forest products industry is the largest industry in Alabama, and timber is the dominant crop harvested in more than half (34) of the state's 67 counties (Figure 3).

Forests also provide economic value through non-timber products, tourism, and outdoor recreation. In 1996, 1.3 million Alabama residents 16 years old and older engaged in fishing, hunting, or wildlife-watching activities. Wildlife-associated recreation in Alabama generated \$1.8 billion in 1996, including trip-related expenditures, equipment purchases, licenses, contributions, land ownership and leasing, and other items and services. (U.S. Fish and Wildlife Service, 1996).

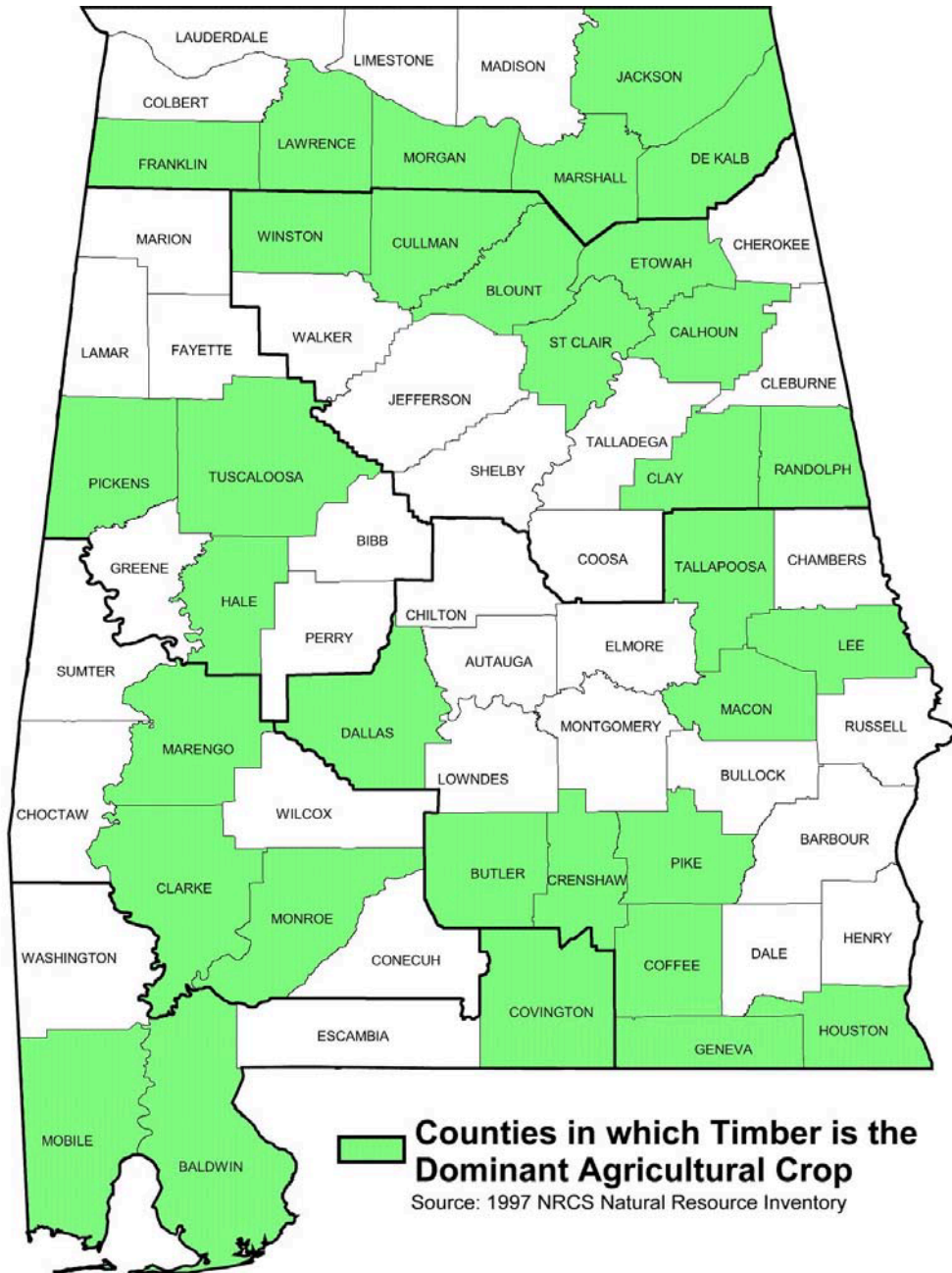


Figure 3. Alabama Counties in Which Timber is the Dominant Agricultural Crop



## *Natural Diversity*

### Natural Communities

The Nature Conservancy has identified at least 284 natural community types (unique plant associations) in Alabama, 178 of which are considered at risk (Association for Biodiversity Information, 2001). Natural communities including Appalachian cove hardwoods, prairies, swamps, caves, glades, and coastal maritime forest support a diversity of plant and animal species that is among the highest in the Nation. Many dozens of these species are endemic and thus found nowhere else in the world but Alabama (e.g., Alabama canebrake pitcher plant, eight new species of plants recently discovered in Bibb County, watercress darter, Red Hills salamander, etc.). Alabama is especially rich in certain groups. For example, Alabama has more freshwater mussels, freshwater turtles, freshwater snails, and crayfish than any other state. Alabama ranks second only to Tennessee in freshwater fish diversity.

Alabama's exceptionally rich fauna is the result of its ancient and complex geological terrain and abundant and diverse streams. Pleistocene glaciers never scoured Alabama, so the native flora and fauna continued to diversify and evolve during this period. Karst areas (underlain with limestone) in the northern part of the state are rich in caves, and Alabama is a national "hotspot" in diversity of cave-dwelling invertebrate and vertebrate animals.

Forests furnish habitats for hundreds of wildlife species and protect and provide clean water for aquatic life that thrives in lakes and streams. Populations of game species such as deer and wild turkey are plentiful in virtually all counties of the state. Excellent fishing is available in streams and lakes throughout the state. Although usually not professionally managed or available for public use, the 15.8 million acres of non-industrial privately-owned forestlands provide the majority of habitat for wildlife and help satisfy public demand for consumptive and non-consumptive uses of wildlife.

### Rare Species

Human activities have greatly influenced the diversity and abundance of Alabama's native species. With 95 species either known or presumed extinct or extirpated (Association for Biodiversity Information, 2001), Alabama tops the list of extinction-prone states on the mainland. Only Hawaii has lost more species. Although most of Alabama's extinct species are aquatic, terrestrial species have been greatly impacted by the loss of naturally diverse forests to agriculture, urbanization, and conversion to pine monoculture. Fire suppression has also been a major contributing factor, especially in the longleaf pine forests of the Coastal Plain. Loss of wetlands and the damming and alteration of many of Alabama's rivers and streams has led to high levels of imperilment and extinction of fish, freshwater mussels, and snails.

Of Alabama's surviving plant and animal species, 916 species and/or subspecies are considered to be rare or imperiled (Association for Biodiversity Information, 2001) (Figure 4). Such forest-dependent species occurring primarily or exclusively above the Fall Line include the green pitcher plant, Price's potato-bean, green salamander, Appalachian cottontail, and gray bat. Rare or imperiled forest-dependent species

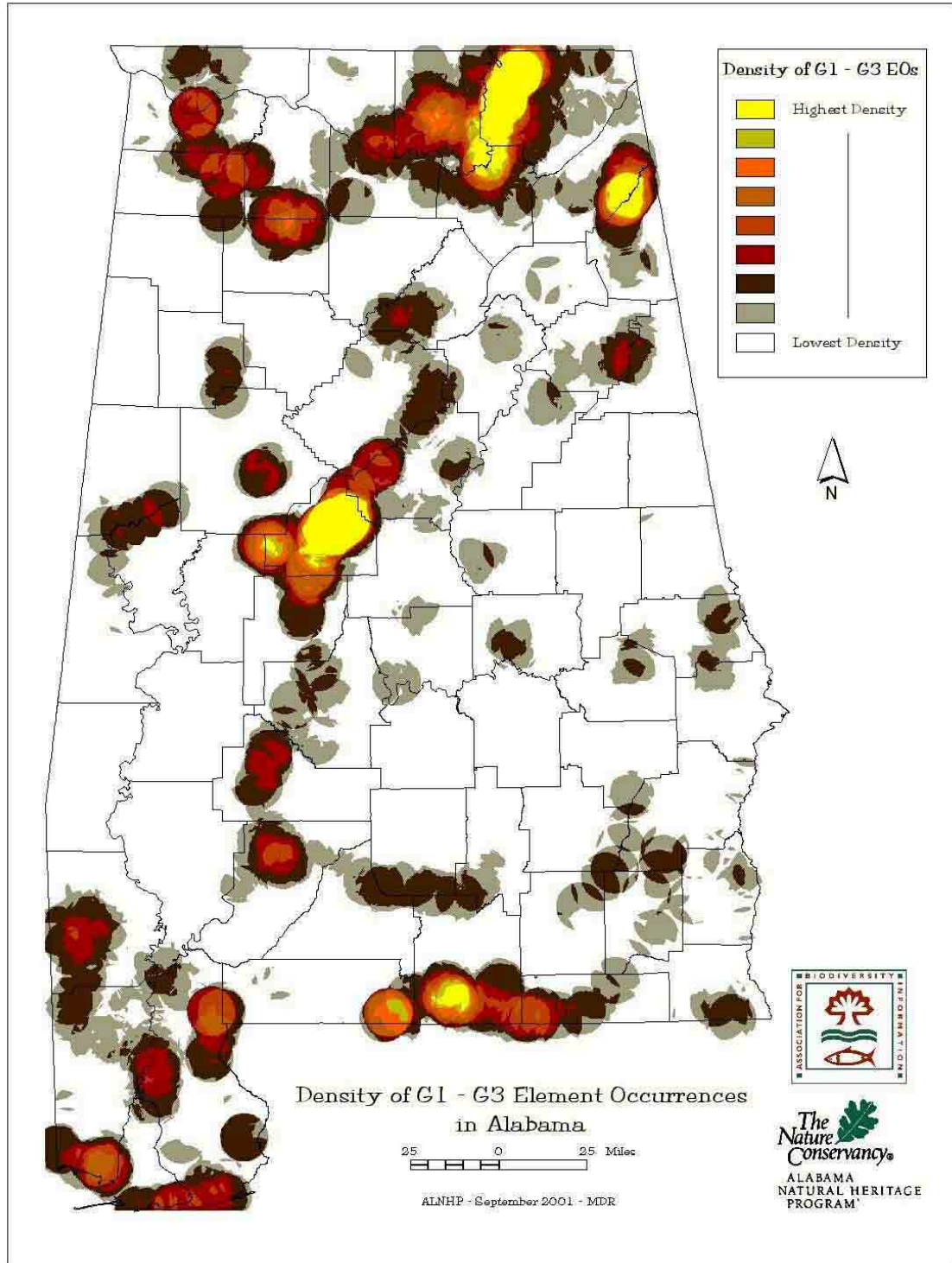


Figure 4. Concentrations of Known Occurrences of Alabama's Imperiled Species

occurring primarily or exclusively in the Coastal Plain include the panhandle lily, Alabama canebrake pitcher plant, Red Hills salamander, dusky gopher frog, gopher tortoise, red-cockaded woodpecker, Florida black bear, and southeastern pocket gopher.

Government agencies such as the ADCNR and private conservation programs such as The Alabama Wildlife Federation, The Nature Conservancy, The Alabama Black Bear Alliance, Partners in Flight, the annual Breeding Bird Survey, and Partners in Amphibian and Reptile Conservation monitor populations and threats to biodiversity and devise strategies to halt or reverse declines in populations of rare plant and animal species through research, education, and species recovery.

### *Topography, Geology, and Soils*

Alabama's topography and geology is among the most varied of the southeastern states, forming several major ecological regions including the Interior Plateau, Southwestern Appalachians, Ridge and Valley, Piedmont, Southeastern Plains, and Southern Coastal Plain (Figure 5). These are further subdivided into smaller distinct units that have characteristic soils and topography, supporting a variety of natural communities.

Alabama has a complex topography (Figure 6), with elevations ranging from sea level at the coast to 2,407 feet in the east-central part of the state. In the Interior Plateau, topography ranges from level to very steep, with elevations of about 600 feet. The Southwestern Appalachians are also highly variable in topography, with elevations of about 1,300 feet. The Piedmont is rolling to steep, and generally ranges from 300 to 700 feet. In the Talladega Uplands portion of the Piedmont, which floristically resembles an extension of the Blue Ridge into the state from Georgia, elevations may exceed 2,000 feet. The highly variable Southeastern Plains ranges from near sea level near the coast to about 1,000 feet.

Soils of Alabama are highly variable, reflecting the diverse topography (Figure 7). Alabama has seven major soil areas, each with several major soil series. A soil series is a part of the landscape with similarities among its properties such as color, texture, arrangement of soil horizons, and depth to bedrock. Alabama's most productive soils are found in the Tennessee Valley of the Interior Plateau, the Ridge and Valley, and portions of the Southeastern Plains.

The **Interior Plateau**, also known as Highland Rim and Chert Belt, is in the extreme northern portion of the state. It includes the Tennessee Valley, Western and Eastern Highland Rim, Outer Nashville Basin, and Little Mountain. The portion of the Eastern Highland Rim lying south of Little Mountain is also known as Moulton Valley. Geology is diverse, and primarily composed of limestone. Forests are predominantly oak-hickory, with some acidic soils supporting Virginia and shortleaf pine. Eastern redcedar is characteristic of the basic soils. Common trees include white, northern red, and black oak, and pignut, mockernut, shagbark, and bitternut hickory. Most of the more fertile lands are used for agriculture and pasture.

The **Southwestern Appalachians** includes the Cumberland Plateau, Sequatchie Valley, Plateau Escarpment, and other regions in north-central Alabama. It is composed of plateaus, mountain ridges, hills, and valleys and contains Cumberland, Sand, Lookout,



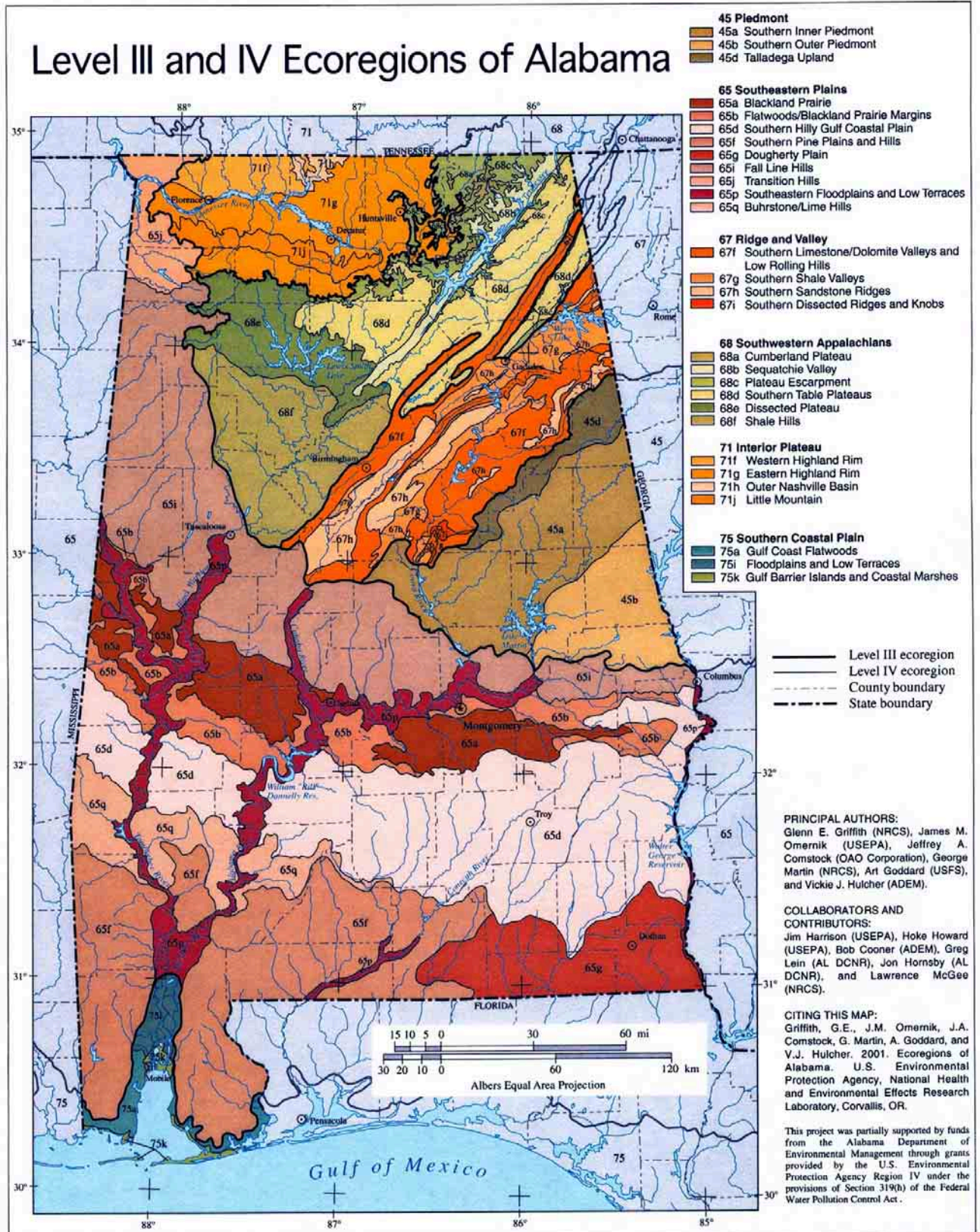


Figure 5. Ecoregions of Alabama

Gunter, Brindlee, Chandler and smaller mountains. Soils are derived from sandstone or shale. Most areas are too steeply sloping for agriculture and are forested. Dominant forests are pine-oak, and to a lesser extent, oak-hickory. Characteristic trees include white, northern red, black, and chestnut oak, pignut, mockernut, shagbark, and bitternut hickory, and loblolly, shortleaf, and Virginia pine.

The **Ridge and Valley** region, often called the "foothills of the Appalachians," is located southeast of the Southwestern Appalachians and extends from the northeast corner to the center of the state. It is characterized by rugged topography with mountain ranges interspersed with hills and valleys. Soils are varied, derived from the sandstone ridges and limestone valleys, and range from clay to gravelly loams. Over half of the region has been cleared of forest, with the remainder in oak-pine forest. Trees typical of this region include white, northern red, black, and chestnut oak, and loblolly, shortleaf, and Virginia pine.

The **Piedmont** is a region of mostly rolling hills extending into central Alabama from Georgia. In the Talladega Upland region along its northern boundary, it becomes somewhat mountainous, and contains Alabama's highest point, Mount Cheaha (elevation 2,407 feet). Clays and rocky soils are derived from granite, schist, and igneous rock. Soil productivity has been greatly decreased over much of the Piedmont due to poor farming practices in the 1800s and early 1900s. Many areas of depleted soils have reverted back to forest, but productivity is often low. Ridge tops are predominantly pine, with hardwoods on the lower slopes and bottomlands. Piedmont forests in Alabama are characterized by loblolly-shortleaf pine, large blocks of loblolly pine plantation, and to a lesser extent, mixed oak-pine. Major tree species include loblolly, shortleaf, and Virginia pine, white, northern red, black, chestnut, and scarlet oak, and hickories.

The **Southeastern Plains** ecoregion is separated from the more mountainous uplands by the Fall Line, which curves from the northwestern corner of Alabama to the Georgia border in east central Alabama. The Southeastern Plains covers two-thirds of the state. Geologically, it is much younger than the upland regions and it lacks well-consolidated rocky formations. Most of the soils in this area are derived from marine and fluvial sediments eroded from the Southwestern Appalachian and Piedmont plateaus. Topography is generally flat to gently rolling, but the Buhrstone/Lime Hills sub-regions in southwest and south central Alabama may have relief of 200 to 300 feet. Longleaf, shortleaf, and loblolly pines dominate most upland forests, with slash pine in the lower areas and scattered areas of hardwoods. Floodplain forests contain oaks, ash, cypress, and tupelo gum. Under pre-settlement conditions, Coastal Plain upland forests naturally burned every few years, and fire-adapted species such as longleaf pine were predominant over much of the area.

The Southeastern Plains includes a variety of geologically and topographically distinct sub-regions, generally appearing as east-west bands. From north to south these are the Transition Hills, Fall Line Hills, Blackland Prairie, Flatwoods/Blackland Prairie Margins, Southern Hilly Gulf Coastal Plain, Buhrstone/Lime Hills, Southern Pine Plains and Hills, and Dougherty Plain.

The **Fall Line Hills** region is also known as the "Central Pine Belt," and has a diversity of soil types ranging from clay to sand. Longleaf pine predominates on the more well-drained soils, with hardwoods on the lower slopes.

The **Blackland Prairie**, or Black Belt, extends in a crescent-shaped band across central Alabama. The region is named for the dark, calcareous, chalky soil, which is high in fertility. Most areas are highly alkaline and do not support pines, but eastern redcedar is abundant. Osage orange is a characteristic tree of fencerows and the remnant hardwood areas not cleared for agriculture.

The **Flatwoods/Blackland Prairie Margins**, also called the Chunnenugee Hills or Blue Marl Region, is a narrow band lying mostly between the Blackland Prairie and the Southern Hilly Gulf Coastal Plain. Terrain is generally hilly, with sandy loam topsoils over sandy clay to clay subsoil. Loblolly and shortleaf pines predominate in the eastern portion, with post oak historically predominating in the western portion, an area sometimes referred to as the Post Oak Flatwoods.

The **Buhrstone/Lime Hills** is a band of fertile soil approximately 30 to 40 miles wide extending from Mississippi to Georgia. Rocky bluffs and deep ravines characterize the region. Ridge tops and upper slopes support longleaf, loblolly, and shortleaf pines, with a mixture of oaks. Bluffs, ravines, and lower slopes are dominated by beech, magnolias, oaks, and hickories.

The **Southern Pine Plains and Hills** and **Dougherty Plain** have sandy loam, sandy clay, or sandy soils. This is the "pineywoods" region of Alabama. Most of this region is low in elevation and relatively flat. The fire-adapted longleaf pine community was extensive here before extensive clearing for agriculture, conversion to loblolly plantations, and suppression of fire.

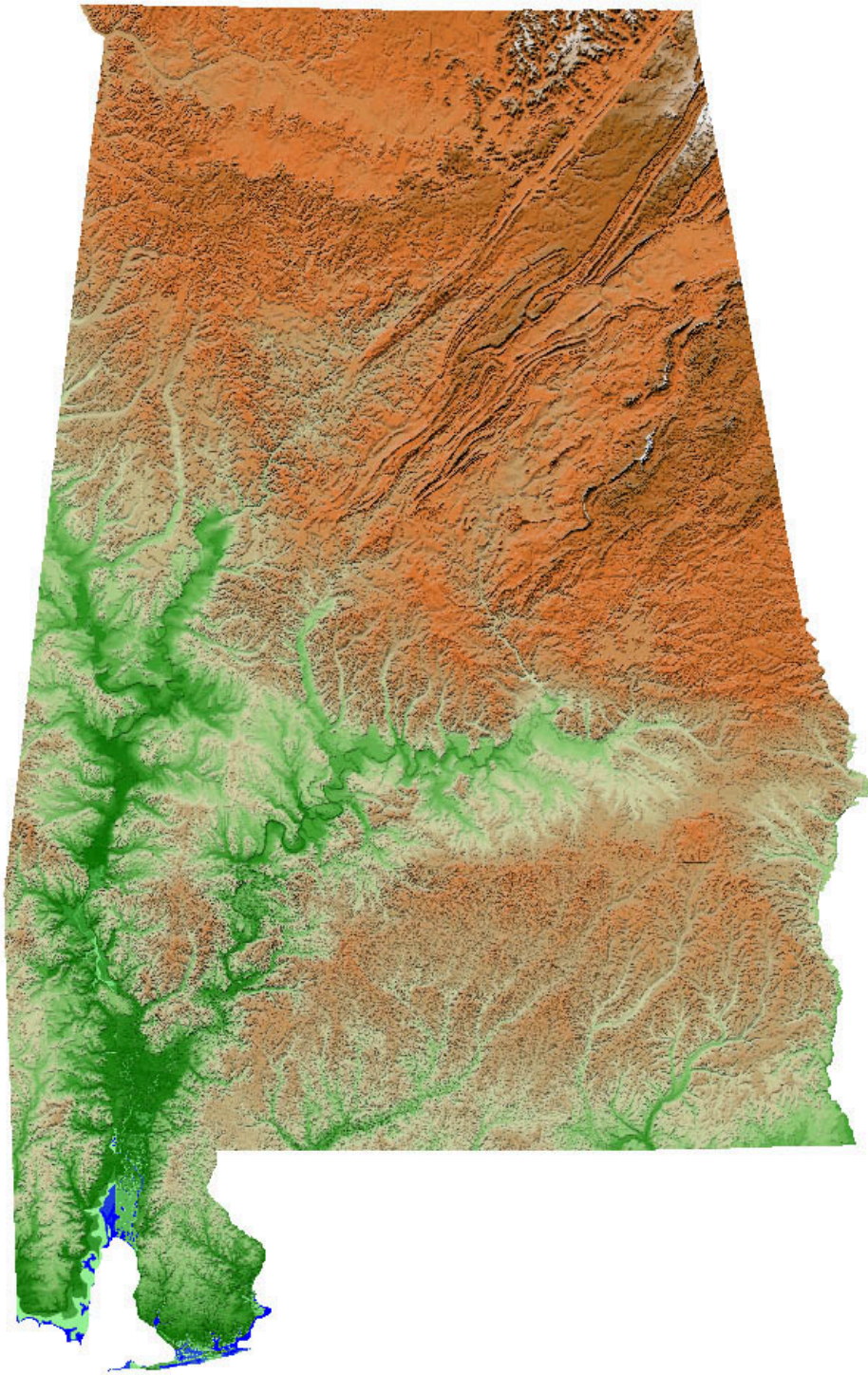
Each of the ecoregions of the Southeastern Plains contain areas classified as **Southeastern Floodplains and Low Terraces**. These are along larger river systems, including those of the Mobile Bay drainage, the Conecuh River, and the Chattahoochee River.

The **Southern Coastal Plain** in Alabama is limited to Mobile and Baldwin counties. It contains the Tensaw Delta, coastal flatwoods, marshes, beaches, and barrier islands.

## *Climate*

Alabama's climate can be described as moderate and continental with relatively mild winters and hot, humid summers. Although temperatures vary locally, statewide average summer temperatures range from 72 degrees F to a high of 87 degrees. Average daily temperatures range from 46 degrees F to 55 degrees in winter. Annual rainfall, ranging from 45 to 60 inches per year, is well distributed throughout the year.





Compiled by the Cartographic Research Lab  
University of Alabama

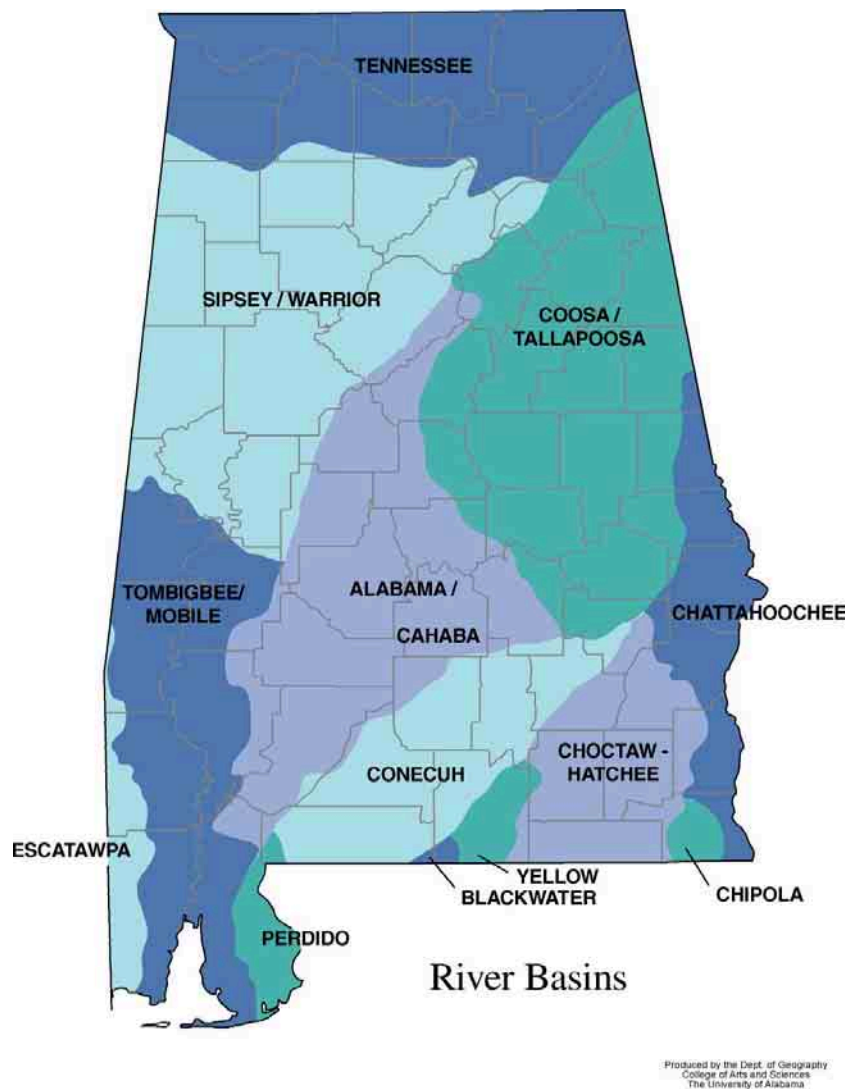
**Figure 6. Topographic Relief Map of Alabama**





## Significant Watersheds

Alabama has more than 235,000 miles of waterways spanning three major river basins and several minor Gulf drainages (Figure 8). Most of the state lies within the Mobile Bay Basin, the major tributaries being (from west to east) the Tombigbee, Black Warrior, Alabama, Cahaba, Coosa, and Tallapoosa rivers. The Tennessee River Basin drains the northern portion of the state. The Chattahoochee River forms the eastern boundary with Georgia and is part of the Apalachicola River Basin. Lesser drainages into the Gulf of Mexico include the Escatawpa, Perdido, Blackwater, Conecuh, Yellow, Choctawhatchee/Pea, and Chipola. Most of the larger streams have been impounded for hydroelectric power, navigation, and recreation. The Tennessee Valley Authority (TVA), Alabama Power Company, and the U.S. Army Corps of Engineers maintain an extensive network of reservoirs. With only a small impoundment near its headwaters, the Cahaba River is the state's largest free-flowing stream.



**Figure 8. Watershed Map of Alabama**

## *Recreation Opportunities*

Tourism and forest-based recreation constitute a substantial segment of Alabama's economy, contributing \$1.8 billion in 1996. The state has two national preserves, eight national wildlife refuges, four national forests, 26 state parks, and numerous state wildlife management areas that support and serve the growing tourism and recreation industry. Although not all revenues reported for tourism and recreation are the result of forest-based activities, the natural beauty of Alabama's forests, combined with the State's diverse topography, makes it a popular vacation destination for an increasing proportion of the American public. The most popular forest-based outdoor recreation activities include hunting, hiking, horseback riding, spring flora and wildlife observation, photography, camping, and enjoyment of nature.

Most forest industries that own land in Alabama recognize the opportunity for outdoor recreation on their lands and make them available for hunting, hiking, and other public recreation use by lease or permit. Recreation use on non-industrial private forestlands is much more limited than on public lands. Fewer landowners are willing to allow the public access to their lands, and an increasing number lease their lands, primarily for hunting, to users who also help protect forest resources.

## *Cultural Resources*

When Europeans first settled Alabama, Native Americans had inhabited the area for as long as 12,000 years. These peoples developed permanent settlements, practiced agriculture, and hunted and fished in virtually every portion of the State. The Mississippian culture (700-1300 AD) featured ceremonial mounds, ornate pottery, and sophisticated agriculture. Archaeological sites are numerous, especially in river valleys and adjacent flood plains.

Although Spanish explorers traveled through Alabama in 1540, the first European settlement was established near the coast in 1702. By the early 1800s, Indian cessions and removal campaigns opened up to white settlement large portions of western (Choctaw) and northern (Chickasaw and Cherokee) Alabama. As the natives were removed, white settlement proceeded rapidly. Today Alabama has numerous historic sites that include Native American sites, antebellum homes and plantations, and Civil War battlegrounds and cemeteries.

Although many of the more important and obvious archaeological and historical sites have been protected and restored, many little known and undiscovered sites, including some that lie within forestlands and along riparian corridors, remain unprotected and unexplored. Responsibility for conservation of historical and archaeological resources rests with the Alabama Historical Commission.

## *Mineral Resources*

According to the Alabama Geological Survey, the most important mineral resources currently produced in the State are coal, oil, and natural gas. Others include crushed stone, masonry and Portland cement, and sand and gravel.

Coal and natural gas reserves are principally found in the Cumberland Plateau, Ridge and Valley, and Coastal Plain, including offshore areas. Although regulations have strengthened during the past two decades, surface mining destroys native forests, often threatens water quality, and adversely affects natural landscapes.

### *Timber Management Opportunities*

The economic importance of Alabama's timber industry and the increasing demand for forest products is a major component in the "working forests" concept. At 4.45 million people, Alabama's population is placing greater demands on our remaining forestlands and the resources they provide. The state's forest industry provides a vital source of income and jobs for many rural areas and smaller cities. As stated in a previous section, timber is the dominant crop harvested in more than half (34) of the state's 67 counties. Harvesting, processing and marketing of wood products accounts for over 66,800 jobs. Forest resources contribute in excess of \$5 billion to the state's annual economy, making it Alabama's largest industry.

The most positive change in Alabama's forestland over the last few decades has been in the standing volume of hardwood timber. From 1973 to 2000, total volume increased 41 percent from nearly 9 billion to over 15 billion cubic feet (Table 1).

**Table 1. Volume Comparison**

Year	Total Growing Stock (MMCF)	Softwood Growing Stock (MMCF)	Hardwood Growing Stock (MMCF)
1973	20,212 million CF	11,283 million CF	8,929 million CF
1982	21,706 million CF	11,656 million CF	10,050 million CF
1990	23,075 million CF	11,101 million CF	11,974 million CF
2000	27,847 million CF	12,683 million CF	15,164 million CF

Alabama forests are at their highest stocking level ever. The latest survey report shows that there are 28 billion cubic feet of growing stock on Alabama's timberland, of which 13 billion cubic feet are softwoods and 15 billion cubic feet are hardwood. On average, commercial forests in Alabama support 13 cords of timber per acre. Yearly growth on these forests is over one-half of one cord of timber per acre.

Compared to the figures reported in the 1990 survey, the recent survey (2000) showed that the growing stock inventory of softwood is up by 12 percent (it had decreased by 2 percent over the period from 1982 to 1990). Hardwood inventory volume is also significantly up (by 21 percent) in the same period. This boost in volume and growth occurred even though there was an increase in the use of hardwoods by pulp and chip mills. According to USDA Forest Service, growth is up dramatically because of increases in vigor and better management of existing stands.

Alabama is cutting more pine volume than is grown on an annual basis. Pine volume removed exceeded volume grown by 10.6 percent through the 1980s, but removals exceeded growth by only 0.7 percent from 1990 to 2000 (Hartsell and Brown, 2002). This "drain" in pine is regional in nature. Indications of change show that certain areas are being more heavily cut than others. This is particularly true through the mid-section

of Alabama and includes North Central Alabama. This was caused by a combination of a loss of commercial forestland and inadequate regeneration. Southeast and West Central Alabama show significant cutting, but indications are that planting programs currently in place will ease this in the short run.

As a 1992 satellite land cover/land use map of Alabama shows (Figure 9), losses of forested lands are most conspicuous near the coast, in the southeastern "Wiregrass" region, and on Sand Mountain and in the Tennessee Valley in the north. The Black Belt region appears as a sparsely forested swath extending three fourths of the way into Alabama from Mississippi, but the absence of forest in this "prairie" region is largely natural. The expanding metropolitan areas of Huntsville, Birmingham, Tuscaloosa, Anniston, Montgomery, Mobile, and Dothan are clearly visible.

The impacts of forest fragmentation are widespread in Alabama and will affect timber availability in the future. While a moratorium on development is not possible (or necessarily advisable), there may be mechanisms to influence landowners to retain forest acreage to maintain a viable land base.

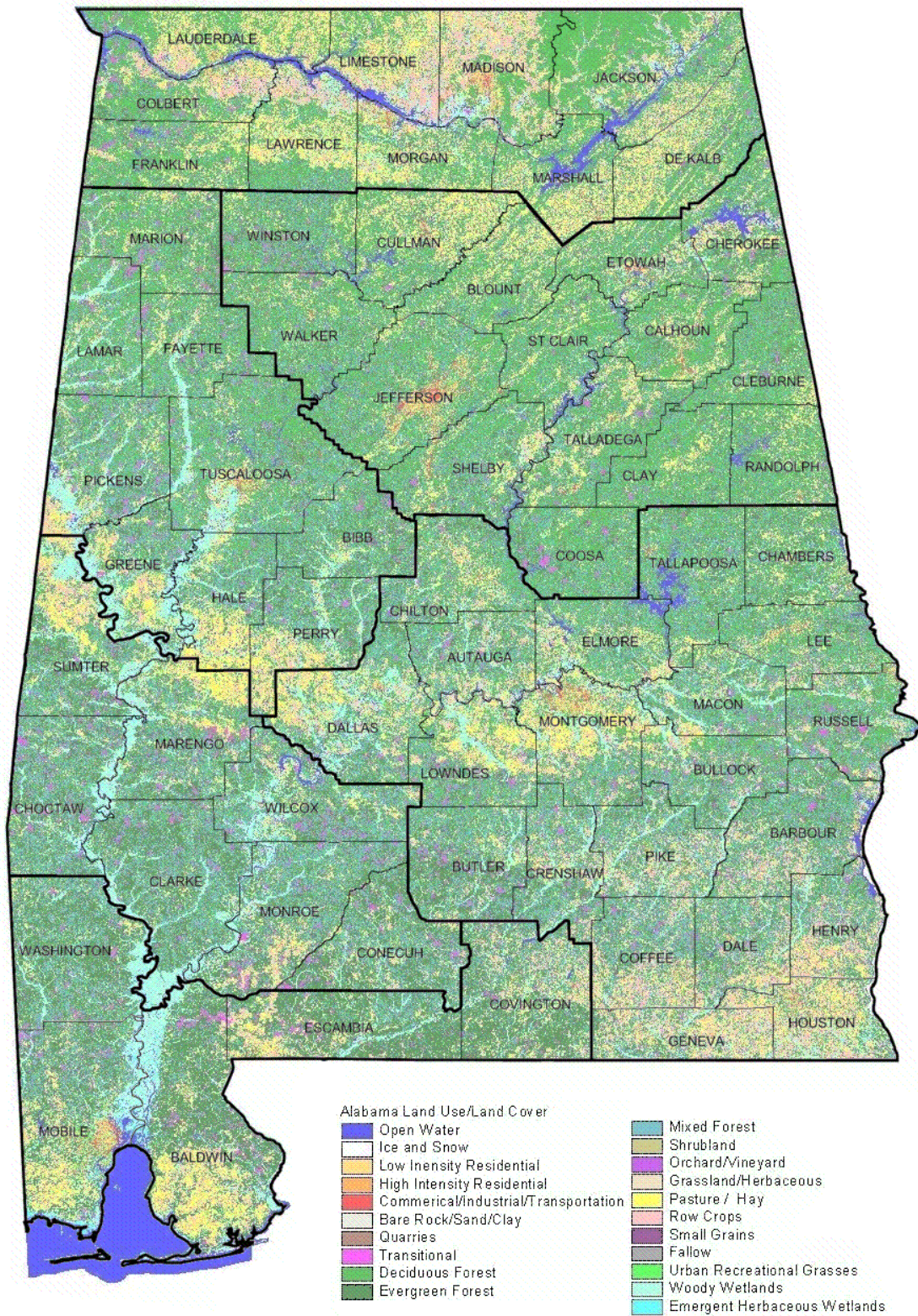
The following are some mechanisms that may influence landowners to retain forestland (Foreman, 1999):

- push the concept of local landowner associations to coordinate education and training, management across property boundaries, and to achieve policy issue focus;
- embrace the land conservation movement, including the Forest Legacy Program, as a means to reduce the effects of fragmentation with emphasis on forest management as an integral core element;
- begin managing smaller tracts more intensely, i.e. woodlot management.

Using a different methodology than the Forest Service FIA, the USDA Natural Resource Conservation Service (NRCS) Natural Resource Inventory (NRI) identified a five percent reduction of Alabama forestland from 20,770,400 acres in 1982 to 19,784,900 acres in 1997. The major cause of timberland losses was conversion to urban development (428,700 acres), with additional losses to rural transportation, cropland, pasture, and small impoundments.

Forestlands controlled by federal and state agencies and forest industries are generally well protected by laws, regulations, company policies, and prudent management. Federally owned lands in Alabama include the Bankhead, Conecuh, Talladega, and Conecuh National Forests, Tennessee Valley Authority (TVA) and US Army Corps of Engineers reservoir properties, Little River Canyon National Preserve, Horseshoe Bend National Military Park, Fort McClellan (recently closed), and several national wildlife refuges. Numerous state parks, state forests, state wildlife management areas, and Forever Wild preserves comprise the bulk of state-owned forestland under protection.





**Figure 9. Vegetation Cover and Land Use of Alabama**  
*Alabama Geological Survey data, ca. 1992*

In recent years numerous partnerships have developed between and among federal and state agencies and forest industries that contribute substantially to the effective protection and sound management of the properties they control. These inter-organizational agreements provide protection and management of public and forest industry lands for fire management, wildlife management, threatened and endangered species protection, recreation services, etc.

It is often on non-industrial private lands that protection and planned management of resources is lacking and where the greatest threat of fragmentation of forestlands, parcelization, conversion to non-forest uses, and danger from abuse and destruction of forest resources exists.

Although technical assistance and limited financial assistance are generally available to private landowners from the Alabama Forestry Commission (AFC) and other government agencies, private forestry consultants, and forest industries, most forest landowners have no established plan or policy for managing their forestlands. Many do not consider a plan or management until they decide to harvest timber. Many others wait until after the timber is harvested to consider options for the future productivity of their lands. The current level of technical assistance and incentives is considered inadequate to serve the large and growing number of forest landowners in the State.

## Land Tenure

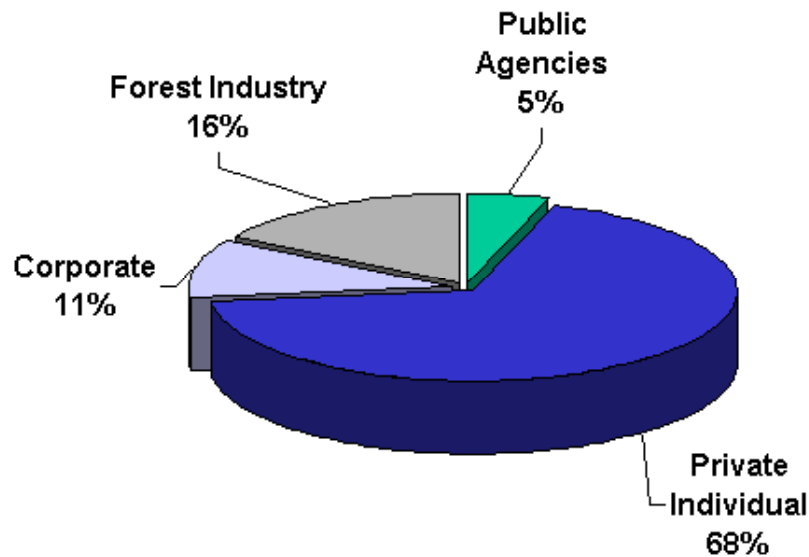
### *Forest Ownership*

Non-industrial private landowners controlled 79 percent of the state's forest in 2000 (Hartsell and Brown, 2001). Within this group, corporate ownership increased 41 percent and ownership by individuals increased 9 percent since 1990. Forest industry—mainly paper companies—owns 16 percent of the state's forest, a decrease of 22 percent during the same period. The remaining 5 percent of the state's woodlands are owned by the state or federal government (Figure 10). This is the typical pattern for forest ownership in the southern United States.

### *Characteristics of Forest Landowners*

The typical Alabama non-industrial forest owner controls a relatively small forested tract of around 80 acres. "Small" owners - those with less than 500 acres - hold nearly 50 percent of the total commercial forested acreage in the state, comprising nearly 11 million acres.

A 1990 timber owner survey reported 214,241 timber ownerships in Alabama. This was down 4 percent from a similar report done in 1982. This reduction in ownerships occurred due to urbanization and consolidation of holdings. North Alabama supports a large number of owners and small average tract sizes, while South Alabama supports a small owner number with larger average acres. Cullman, Jefferson and Marshall Counties have the largest number of owners with typically the smallest average tract sizes in Alabama. Montgomery, Lowndes and Chambers Counties have the least number of owners with the largest average tract sizes.



**Figure 10. Alabama Forest Ownership Categories**

### *Forest Ownership Trends*

According to the most recently published USDA Forest Inventory statistics for Alabama (Hartsell and Brown, 2001), there was an overall 4.5 percent increase in the area of timberland between the 1990 and 2000 forest inventories, owing largely to reversion of crop and pastureland. However, several regions lost timberland. Losses have been most apparent on the Birmingham, Huntsville, and Mobile areas (McWilliams, 1991).

Trends in forest ownership have changed through the past century. Major trends can be summarized as follows:

- *1850-1920:* Acquisition of lands by railroads
- *1920-40:* Acquisition of marginal private lands by federal government (National Forests)
- *1930-70:* Acquisition of private lands by paper and other forest products companies
- *1990-2001:* Sale of long-held corporate lands to investors, pension funds, etc.

Within the non-industrial private ownership category, the 2000 Forest Inventory revealed a significant (9 percent) increase in the private individual class, which is the largest class of forestland owners in the state. As such, these individuals will continue to have a major influence on the future use and condition of the state's forest resources.



## Forest Resource Trends and Threats

As noted by Best and Wayburn (2001), several emerging factors in private forest ownership are affecting forests at the local, state, and national level. These include fragmentation of ownerships, the aging of individual owners, restructuring of the forest industry, the rise of financial owners, cover type conversion, and sprawling development.

### *Fragmentation of Ownerships*

Fragmentation of forest ownerships, also called subparcelization, may be caused by a number of factors, including the distribution of parcels to heirs following the deaths of owners, pressure by developers to sell for development, or pressure to sell to avoid higher property taxes. Many of these smaller tracts that remain forestland will become part-time farms, second home sites, and outdoor recreation retreats in the future. While still counted statistically as forest, these areas often become essentially residential and can no longer be considered functioning forest ecosystems. The more urbanized the forest, the less it is capable of functioning as wildlife habitat or as a source of forest products. Even though there may appear to be no net loss in forested area, the services provided by forests in smaller parcels may be substantially reduced (Wear et al. 1998). Forest amenities threatened by subparcelization include threatened and endangered species, water quality, scenic beauty, and wildlife habitats.

In the absence of new zoning laws or attractive incentives, it is likely that fragmentation of forestland tracts will continue due to increasing population, pressures to subdivide tracts, and owners' desire to live in the rural/urban interface, as described below.

### *Restructuring of the Forest Industry*

The 1990s saw acceleration in industry consolidation and turnover in industrial forestland. A wave of mergers has swept the industry in recent years. Prime examples that have affected Alabama's timberlands are International Paper's acquisition of Union Camp and Champion, and Weyerhaeuser's acquisition of MacMillan Bloedel. Because timberland is carried as a cost on the balance sheet of public forest companies, many large companies are divesting themselves of these lands to obtain greater investor value. In the course of selling off forestlands that are no longer strategically important to own directly, portions of these properties have gone into residential uses. International Paper, for example, is actively selling much of its holdings in Alabama.

### *The Rise of Financial Owners*

More and more forestland is being acquired as a financial asset, held for its value as a portion of a diversified investment portfolio. The largest financial owners of forestland are pension funds. Large tracts in Alabama are managed for pension funds as far away as California and Hawaii. With growing investments by pension funds, it is likely that financial ownership of Alabama's private forests will accelerate. Lands from which industrial corporations are divesting themselves will likely continue to go into financial ownerships, as happened in early 2000 when U.S. Alliance sold several hundred thousand acres of Alabama timberland to John Hancock. The indirect nature of financial ownership tends to centralize management control with financial managers, not foresters. Because investment managers are evaluated by their ability to achieve certain levels of return, there is no reason to expect financial owners to have longer-term forest management perspectives than those of forest products companies.

### *Cover Type Conversion*

One type of forest conversion is the replacement of one forest type with another through management or other human influences. For example, forests dominated by pines can be converted to hardwoods by selective cutting and the exclusion of fire. Natural stands can be converted to plantations. In the draft 2000 RPA Assessment of Area Change, Alig noted, "Over the past 50 years, the largest changes in the private forests of the United States have been the substantial decrease in the area of natural pine and the rapid increase in the area of planted pine in the South." When cover type conversion is a result of poor forest management, reduced forest health and/or productivity can then lead to subsequent conversion to other non-forest uses (Best and Wayburn 2001).

Some forested ecosystems of Alabama and the Southeast have been recently highlighted as being in peril of complete or near-complete loss. Reed Noss and Robert L. Peters (1995) identified what they felt were the twelve most endangered ecosystems in North America based on four factors:

- 1) Dramatic diminishment in area since European settlement;
- 2) Small and fragmented current area;
- 3) Relatively high numbers of imperiled species; and
- 4) Continuing threats to these species' existence.

Of the twelve ecosystems identified, the following occur in Alabama:

- 1) Longleaf pine forest and savanna
- 2) Eastern grasslands, savannas, and barrens
- 3) Old growth eastern deciduous forest
- 4) Southern forested wetlands

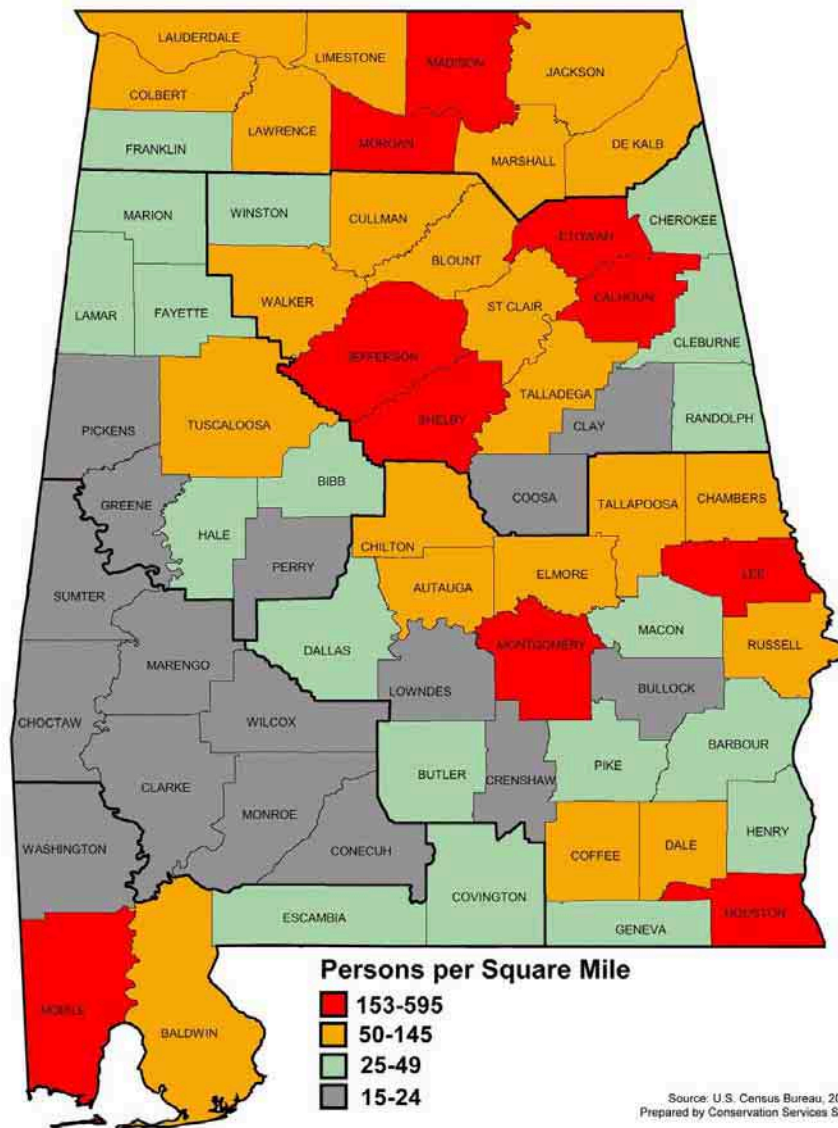
### *Sprawling Development/Population Growth*

This pattern of ownership, combined with activities associated with increased numbers of people in close proximity to forestlands, often creates problems sometimes referred to as "rural/urban interface" problems. The rural/urban interface is a generalized area, often on the fringe of an urban area, where people establish residence. Forestland in the vicinity of major urban centers and larger towns is more likely to be affected.

Such areas are characterized by the intermingling of home sites with forest and agricultural lands and the activities associated with each land use. Special problems encountered in the rural/urban interface include increased risk of forest and structural fires, problems with smoke generated by prescribed fires, and stresses imposed on forests and the environment caused by increased numbers of people in close proximity to forestlands.

Population and population growth are two of the more important factors that determine the health of forestlands and the areas most likely to be impacted by sprawling development. In 2000, Alabama's population was 4.47 million people; an increase of 10.1 percent since 1990 (US Bureau of the Census, 2001). It is estimated that by the year 2025 Alabamians will number 5.22 million, a 17 percent increase from 2000. Figures 11 and 12 represent current population density and areas of population growth, respectively.

# Population Density, 2000



**Figure 11. Population Density, 2000**

In a study of the five counties surrounding Charlottesville, Virginia, researchers found that as the density of population increased, the probability of the forest functioning as timberland decreased. At 45 people per square mile (psm), the chance was 50 percent; at 70 psm it was 25 percent; and at 150 psm the probability was zero (Wear et al. 1999).

The most rapid population growth can be expected to occur near major urban areas, along major transportation corridors, and in the vicinity of large industrial plants such as the Mercedes-Benz automobile plant at Vance, located about 15 miles north of Tuscaloosa. Growth is expected to be heaviest around Birmingham, Huntsville, Mobile, and Dothan.





## Projected Changes in Forests

In 2010, the total area of forestland in the State is likely to be about the same or slightly less. In the short run, forestland losses to development and other uses may be partially offset by reversion of agricultural lands to forestland and by reforestation of marginal and sub-marginal agricultural lands.

The USDA Forest Service Recreation, Wilderness, Urban Forest, and Demographic Trends Research Group has produced national "hotspot" maps representing counties that have forest cover but also have current or projected (to 2020) population growth pressures (Figure 13). They examined the spatial overlapping of low-to-high levels of human presence and activity with low-to-high levels of remaining forest and natural land area. They refer to locations where high levels of human pressure coexist with high levels of forest and natural lands as "hotspots". These are places where natural lands are still in relative abundance *and* where human population growth and demands also are highest. Details may be found in the publication, *Footprints on the Land: An Assessment of Demographic Trends and the Future of Natural Resources in the United States* (Cordell and Overdevest, 2001).

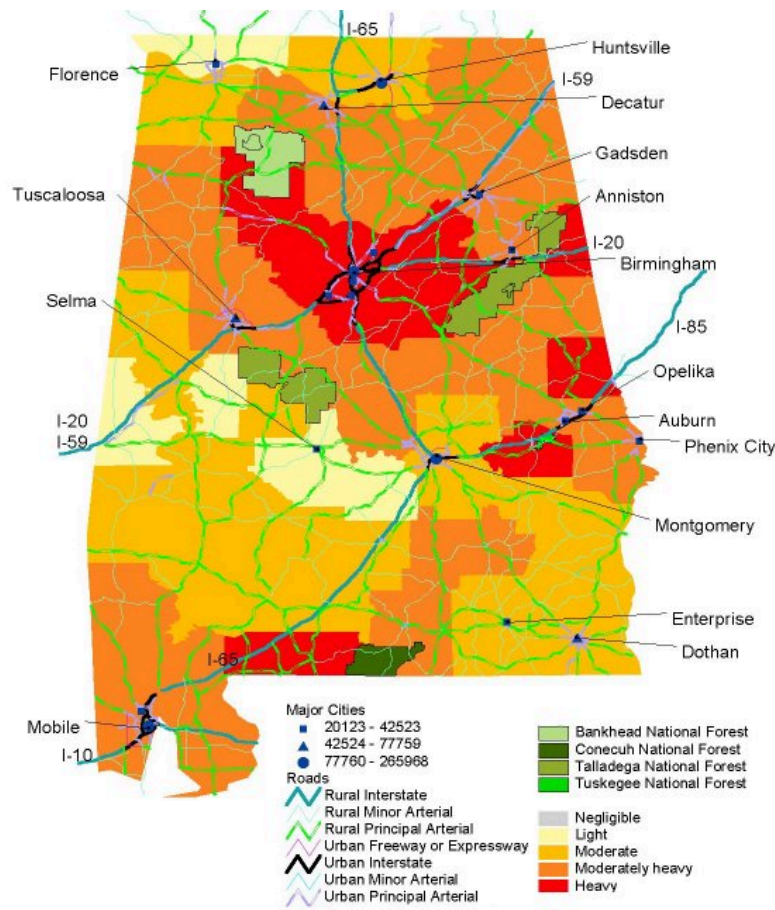


Figure 13. USDA Forest Service "Hotspot" Counties, 2020 Projection

Environmental and conservation organizations are expected to seek more legislation and regulations that affect the management of public lands. Changes would be aimed at protecting biological diversity, water quality, cultural resources, wildlife habitats, and scenic values and increasing outdoor recreational opportunities. Timber production on public lands is likely to be de-emphasized.

New laws and regulations affecting privately owned lands will also be sought but are likely to be adopted at a much slower rate than on public lands. Emphasis for private lands protection will be aimed primarily at protecting water quality and regulating forest practices, especially logging activities.

It is important to recognize that while sampling data indicates stability or even a net increase in total forestland in many counties over the past few decades, these gains are in most cases due to a smaller area being converted *from* forestland than the area of abandoned cropland or pasture being converted *to* forestland by active replanting or by natural regeneration of land. The overall character of the forest itself can change significantly, since the forests lost to other uses often differ considerably in age, composition, quality, and ecological value than the forests gained. For example, while pine plantations on former agricultural land are generally considered "forest," they obviously lack certain ecological, economic, and recreational values of natural stands.

### *Public Concern*

In recent years, the public has become much more focused with respect to environmental concerns and more aware and outspoken about local issues. Urban dwellers seek more outdoor recreation experiences and exert increasing user pressure on private as well as public lands. As a result, sentiment and support for environmental protection on all lands, and public lands in particular, by environmental and conservation organizations, as well as individual citizens, are growing and are expected to increase.

## Existing Programs to Conserve Forestlands

### State Programs

State programs exist to protect and conserve environmentally important forestlands. Under the Forever Wild Act of 1992 the Alabama Department of Conservation and Natural Resources (ADCNR) State Lands Division is authorized to acquire conservation easements or fee title to lands in need of public protection. As of January 2001, the Forever Wild program has acquired and currently manages 17 Forever Wild preserves totaling 51,920 acres.

The Alabama Forestry Commission manages approximately 14,487 acres of state forests. In addition, it administers the TREASURE Forest Program which provides management assistance to landowners. This voluntary program promotes sound and sustainable, multiple-use forest management while at the same time protecting and enhancing the environment. The TREASURE Forest Program promotes this management ethic through two avenues: education and recognition. Education is provided through information and on-the-ground technical assistance from the member agencies and groups represented on the Alabama Forestry Planning Committee.

The Forest Legacy Program will complement existing state programs by providing funding necessary to acquire otherwise unobtainable easements and important tracts that contain environmentally important forest resources.

## Non-government Programs

### Non-profit Land Trusts and Conservancies

At least six in-state and four regional land trusts and conservancy organizations are active in protecting environmentally important lands in Alabama:

#### Alabama-based Land Trusts

Alabama Forest Resources Center (Mobile, AL)  
 Black Warrior-Cahaba Rivers Land Trust (Birmingham, AL)  
 Coastal Land Trust (Mobile, AL)  
 Land Trust of East Alabama (Auburn, AL)  
 Land Trust of Huntsville & North Alabama (Huntsville, AL)  
 The Nature Conservancy, Alabama Field Office (Birmingham, AL)

#### Regional Land Trusts

Lookout Mountain Land Trust (Lookout Mountain, TN)  
 South Cumberland Regional Land Trust (Monteagle, TN)  
 Southeastern Caves Conservancy (Signal Mountain, TN)  
 Ducks Unlimited Conservation Easement Program (Ridgeland, MS)

### Forest Industry Programs

Forest products companies, mainly pulp and paper companies, control significant amounts of forestland in Alabama, many of which contain unique resources and opportunities for public use and benefit. Resource protection programs consist of two types, those that industries initiate voluntarily by company policy and those that involve cooperative agreements with government agencies and conservation organizations.

Forest industries in Alabama have long been sensitive to non-timber resources and opportunities on their properties and have taken steps to protect and conserve them for the public benefit. These include the administrative segregation and protection of many scenic, geologic, and historic features and areas that contain unique biological communities, waterfalls, threatened or endangered species, and other special features. Companies have also constructed hiking trails and permitted public use of their lands, especially for hunting and wildlife observation.

The Sustainable Forestry Initiative (SFI) program is a standard of environmental principles, objectives and performance measures that integrates the perpetual growing and harvesting of trees with the protection of wildlife, plants, soil and water quality and a wide range of other conservation goals. An independent Expert Review Panel, comprised of representatives from the environmental, professional, conservation, academic and public sectors, reviews the program. Through the SFI program, members

of the American Forest & Paper Association are attempting to change the way that private forests are managed in the U.S.

Many forest products companies with extensive land holdings in the State have also entered into agreements with the Alabama Division of Wildlife and Freshwater Fish (ADWFF) for public hunting on their lands, which also helps assure protection of resources, provides public access, and facilitates scientific investigation of rare or threatened plants and animals. In return ADWFF provides patrol services and oversight of hunting activities and assistance in wildlife and habitat management.

## State Laws, Regulations, and Tax Incentives

Alabama's Uniform Conservation Easement Act became effective August 1, 1997. It provides that an easement may be created on real property to preserve the land for conservation, recreation, agriculture, forest, archaeological, or cultural purposes. This supplements provisions of Alabama's "Forever Wild Amendment", Constitutional Amendment No. 543, by adding the following:

- The holder of the conservation easement may be a governmental body or a charitable association or trust;
- A third party right of enforcement exists when expressly provided in easement; and,
- The owner of the property, the holder of the easement, and the holder of a third party right of enforcement may bring an action affecting a conservation easement.

The Forest Legacy Program, in combination with the constitutionally provided property tax relief described above, can provide additional economic benefits to landowners to help forestall the conversion of forests to urban sprawl and other non-forest uses.

## Implementing Alabama's Forest Legacy Program

### *Background*

Growing public sentiment and a general desire by Alabama landowners to protect special resources and environmentally important forest lands prompted the Alabama Forest Resources Center (AFRC) to seek permission from Alabama Governor Don Siegelman, State Forester Tim Boyce and Riley B. Smith, Commissioner of the Alabama Department of Conservation and Natural Resources, to facilitate Alabama's entrance into the Forest Legacy Program (FLP). AFRC is a land trust specializing in the protection of working forests and believes the FLP is consistent with and helps satisfy its organizational mission and goals. In 2000 the Alabama Forestry Commission (AFC), in consultation with the Alabama Forest Stewardship Advisory Committee (AFSAC), entered into a contract with the AFRC for development of this FLP Assessment of Need (AON) document.



The Forest Legacy Program will play an important role in the protection of environmentally important forest resources in Alabama. The FLP will supplement existing programs administered by state and local agencies, land trusts and conservancies, forest products companies, and conservation organizations whose efforts are focused on conserving forest resources on private lands. The FLP process can also provide improved coordination of effort by which all interested organizations and individuals can participate as partners to achieve protection of significant forest resources.

The FLP offers landowners an opportunity to voluntarily protect environmentally important forest resources by donating or selling conservation easements that identify key resource values and establish management goals and land use restrictions. In this way the Program can help maintain the forestland base, protect special forest resources, and provide opportunities for traditional forest uses for future generations. Although landowners that participate in FLP may choose to donate or sell fee title to their lands, in many cases conservation easements will be the preferred method of protecting important forestlands. Limited federal funds will in many cases be better utilized through easements and there are certain advantages to landowners and local communities to the land remaining in private ownership. FLP acquisitions involve willing sellers only, and will be based on federal appraisal standards.

### *Public Participation*

According to Forest Legacy Guidelines, the public has a role in determining how the FLP will be developed and what criteria will be used to prioritize those tracts that receive consideration. To initiate the public participation process, AFRC identified 23 constituencies whose interest in and knowledge about unique and special forest resources and uses were considered valuable in identifying environmentally important forest areas in the State. These constituents and natural resource professionals were representative of federal and state agencies, municipal governments, colleges and universities, environmental and conservation organizations, and forest products companies, as well as individuals active in natural resource conservation and environmental protection. Each was invited to serve on the AON Steering Committee.

PRECEDA Education & Training, a private educational consulting firm with an extensive network of contacts in the natural resource community, was selected by AFRC to provide assistance in developing a public involvement process for the Alabama Forest Legacy Program. Six regional public meetings, one in each proposed Forest Legacy Area (FLA) (see Figure 15, page 40) were conducted to brief the public concerning the FLP and AON, receive comments from landowners and organizations, and accept additional recommendations for FLAs. Announcements about public meetings were mailed to conservation leaders and landowners across the State, daily and weekly newspapers, radio and television stations, and the State Forest Stewardship Committee.

The goals for the Alabama public involvement process were twofold: (1) to provide information to stakeholders and the general public about the Forest Legacy Program, and (2) to elicit any concerns, suggestions, and general comments about Forest Legacy.

PRECEDA sought to ensure that the Forest Legacy public involvement reflected the seven Core Values for Public Participation adopted by the International Association for Public Participation:

1. People should have a say in decisions about actions that affect their lives.
2. Public participation includes the promise that the public's contribution will influence the decision.
3. The public participation process communicates the interests and meets the process needs of all participants.
4. The public participation process seeks out and facilitates the involvement of those potentially affected.
5. The public participation process involves participants in defining how they participate.
6. The public participation process communicates to participants how their input was, or was not utilized.
7. The public participation process provides participants with the information needed to participate in a meaningful way.

In addition, the Forest Legacy Program and the State's involvement in the Program was introduced and discussed in several meetings of the AFC and the Alabama Forestry Planning Committee (AFPC). The Commission enthusiastically endorsed the FLP and the Alabama Forestry Commission's role as state lead agency.

As the lead FLP agency in Alabama, the Alabama Forestry Commission (AFC) will distribute, through the AFRC, copies of the approved AON document to key organizations and individuals in the State. In addition, AFC will initiate timely outreach efforts to generate appropriate FLP publicity among agencies such as the Alabama Agricultural Extension System and other organizations such as the Alabama Environmental Council, Alabama Wildlife Federation, and The Nature Conservancy that have established outreach networks in the State. Newsletters, press releases, public meetings, articles, and field staff will also be utilized to provide continuing publicity about the Forest Legacy Program.

### Important Issues

Based on oral and written responses from all constituencies, the major public issues concerning the conservation of resources and values on privately owned forestlands in Alabama are summarized in Appendix C.

## *Program Goals and Objectives*

### Purpose:

According to the enabling Federal legislation (Appendix B), the Forest Legacy program mandate is to **ascertain and protect environmentally important forest areas that are threatened by conversion to non-forest uses** and to **promote forest land protection and other conservation opportunities**, including the protection of important scenic, cultural, fish, wildlife, and recreational resources, riparian areas, and other ecological values.

Within this framework, Alabama's FLP objectives were derived from input from the public participation process and will be used to determine which eligible tracts will receive priority for participation in the program. Objectives are aimed at protecting forest resource values that constituencies and the public consider of greatest concern. It should be emphasized that although the FLP includes timber production potential when significant forestland conversion threats exist, the primary focus of the FLP is on protecting non-timber resources and values considered to be most threatened.

While the primary goal of the Forest Legacy Program in Alabama is to lessen conversion of environmentally important forestland to non-forest use, secondary goals include:

- Protection of tracts that fit into a larger conservation effort, including tracts that augment and complement other conservation initiatives by federal and state agencies, land trusts, and other private conservation organizations.
- Protection of forest resources that have a federal nexus, either because they are adjacent to federal lands, or because they provide habitat for migratory birds or other federal trust species.
- Protection of tracts with significant biodiversity, because they are more likely to protect Alabama's natural heritage on the minimum acreage and thus in the most cost-effective way possible. Also, the more focused on biodiversity "hot spots," the greater the likelihood that the program will head off the listing of additional species under the Endangered Species Act.
- Preserving and protecting fish and wildlife habitats, rare plants, and biological diversity.
- Preserving and protecting riparian habitats.
- Preserving and protecting water quality, fisheries, and water supplies.
- Preserving and protecting natural beauty.
- Preserving and protecting forest-based recreation opportunities.
- Preserving forestlands for current and future wood production.

Obtaining Interest in Land:

According to the legislation, participating States may acquire from willing landowners lands and interests therein, including conservation easements and rights of public access, for Forest Legacy Program purposes.

Implementation:

I. The protected properties may be held in perpetuity.

II. The State as empowered by the Federal government:

- shall identify the environmental values to be protected by entry of the lands into the program, management activities which are planned and the manner in which they may affect the values identified, *and*
- obtain from the landowner other information determined appropriate for administration and management purposes.

Regarding the foregoing secondary goals, The Nature Conservancy of Alabama has offered to share information on priority sites identified in Alabama for use in Alabama's Forest Legacy Program. The Conservancy has been working with a wide array of technical experts to identify that minimum set of sites/areas nationwide that would protect representative examples of all native species, natural communities and functional ecological systems across the U.S. This information will provide science-based guidance that may be utilized by public or private entities to help guide land protection activities. This approach has the benefit of being focused and science-based, yet flexible in the sense that it is an iterative process and open to adding newly discovered natural areas. This approach is valuable in that it is comprehensive and based on ecoregions in order to find the best examples of each type of habitat/community and most viable rare species locations over a whole region.

***Landowner Participation: Application, Selection, Acquisition, and/or Development of Easements***

Establishment of conservation easements and/or fee simple acquisition must begin with interested landowners. Eligible landowners that may be interested in the FLP may submit applications to the State Forester through the Forest Legacy Coordinator (AFRC) at any time. Application will be made on the form contained in the AON (Appendix D).

**Year 1 (FY 2002) Selection Procedure**

Time constraints imposed by the September 15, 2001 deadline for submission of the draft Assessment of Need document preclude normal tract selection as outlined in the following section. Tract selection must take place quickly for allocation of funds during the 2002 funding cycle, so for the first year of Alabama's participation in the FLP, the FLP subcommittee will submit tracts that have been nominated and submitted to Alabama's Forever Wild land acquisition program, but for which Forever Wild funds are

not currently available. Such tracts will have high scores in their respective categories under the Forever Wild scoring system, and score highly in the Alabama FLP scoring system (Appendix D). These tracts should also receive written support from a majority of Alabama's land trust organizations.

The State Forester, in consultation with the Commissioner of the Alabama Department of Conservation and Natural Resources and the AFRC, whose board of directors has been appointed a subcommittee of the Alabama Forest Stewardship Advisory Committee (AFSAC), will review the Forever Wild tract or tracts for consideration in 2001-2002, and make recommendations regarding the value of these tracts to Alabama's FLP. The selection process will produce a tract or list of tracts that will be prioritized for inclusion and potential funding. The tract(s) submitted will then be considered and approved by the AFSAC. Tracts submitted will have already been scored by Forever Wild, and the landowner(s) will be informed of the fair market value after completion of the appraisal process. The tract(s) submitted will have a willing seller who has amicably agreed on a sales price.

The AFSAC approved tract(s) will then be submitted to the USDA Forest Service's Regional Office in Atlanta. The Forest Service will make the final determination as to which conservation easements or lands will be acquired with federal funds, or, in the case of donations, will be approved for inclusion in the Program under cost-share agreements. All acquisitions will be made subject to availability of federal funds.

Following completion of the prioritization and approval process, easements will be purchased or conveyed as charitable donations, or tracts will be purchased from the willing seller(s).

#### Post-FY 2002 Selection Procedure

The following procedure will be implemented for all tracts to be considered subsequent to FY 2002.

Landowners interested in FLP participation should decide whether they prefer to donate an easement to the Program, apply to have the easement purchased through the Program, or convey a fee simple interest to the FLP. Donated easements may be held either by government or non-government entities where the donee agrees to accept the donation and the donor agrees to manage the lands for Forest Legacy purposes. Organizations eligible by law to hold easements donated to the Program include USDA Forest Service, State or local agencies, and non-profit trusts and conservancies. The State or a unit of local government must hold easements or lands purchased with federal funds under the Forest Legacy Program.

As stated in the previous section, the State Forester and the Forest Stewardship Advisory Committee has appointed the AFRC board of directors as a subcommittee that will review FLP applications at least annually and make recommendations to the AFSAC regarding the value of tracts to Alabama's FLP. The selection process will produce a list of landowner applications that will be prioritized for inclusion and potential funding. The prioritized list will, in turn, be considered and approved by the AFSAC, in consultation with the State Forester, the Commissioner of the Alabama Department of Conservation and Natural Resources (ADCNR) and the ADCNR State Lands Division, which will hold



any interest acquired with federal funds. Recommended tracts will be appraised using federal appraisal standards, and landowners will be informed of their fair market value.

The AFSAC approved list will then be submitted to the USDA Forest Service's Regional Office in Atlanta. The Forest Service will make the final determination as to which conservation easements or lands will be acquired with federal funds, or, in the case of donations, will be approved for inclusion in the Program under cost-share agreements. All acquisitions will be made subject to availability of federal funds.

Following completion of the prioritization and approval process, easements will be purchased or conveyed as charitable donations, or tracts will be purchased from the willing seller(s). The Alabama Department of Conservation's State Lands Division (SLD) shall be the state agency that will hold purchased easements or under the FLP in Alabama. The SLD, which manages all Forever Wild lands, shall also be the managing agency for all acquired FLP fee lands.

Competition for Forest Legacy dollars is fierce - within Alabama and across the nation. Forest Legacy funding is limited. Only the most significant forest properties are likely to receive program dollars. Program history suggests that only one or two properties will likely be protected via purchased easements or fee purchases each year - depending upon tract size, development value, landowner interest and future funding. The potential for donated easements is much broader; Forest Legacy dollars can be applied to the transactional costs associated with donations of working forest conservation easements.

Because funding may be limited in a given year, larger tracts may need to be broken into phases to adequately fund their conservation easement acquisition.

### Application Deadlines

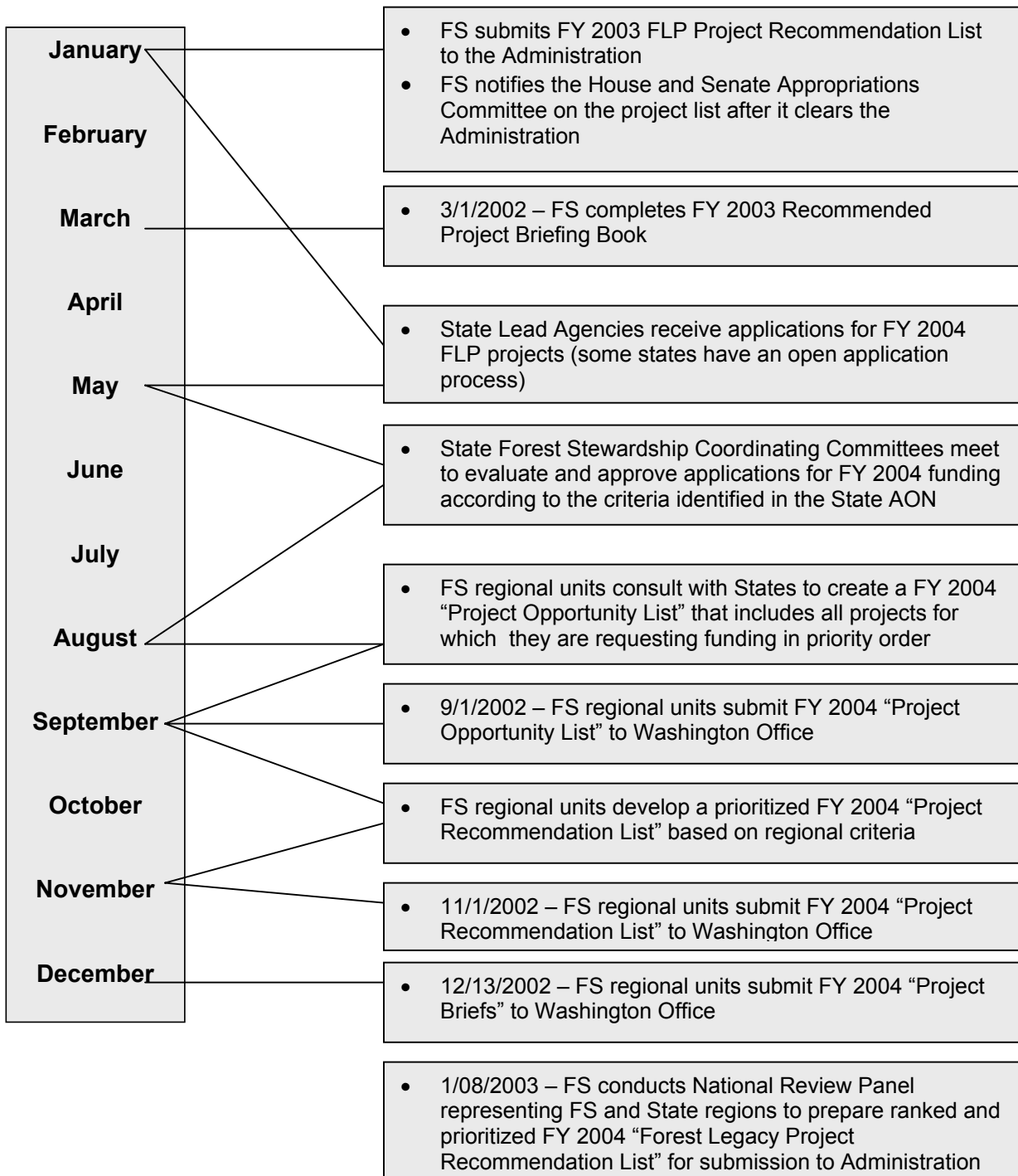
Because Forest Legacy is federally funded, it is presently subject to annual appropriations. In order to assess the need for Forest Legacy program dollars, Congress asks for a list of potential Forest Legacy projects a year in advance of the next fiscal year.

Table 2 details the selection process. In order to meet the national program coordinator's request for information, and to allow time for all aspects of the process, the Alabama program has set a deadline of August 15<sup>th</sup> for projects slated for the Fiscal Year that begins on October 1<sup>st</sup> of the following calendar year. (Example: August 15, 2002 is the deadline for projects slated for Fiscal Year 2004, which begins October 1, 2003.)

Applications must be received in hand August 15<sup>th</sup>, 2002 by the close of business by:

**Forest Legacy Coordinator**  
Alabama Forest Resources Center  
169 Dauphin Street, Suite 302  
Mobile, Alabama 36602  
(251) 433-2372  
e-mail: [alfrc@bellsouth.net](mailto:alfrc@bellsouth.net)

## Forest Legacy Program Project Selection Process - 2004



**Table 2. Project Selection Flow Chart, Using Project Slated for FY 2004 as an Example.**

Specific terms of easements will be negotiated between individual landowners and easement holders and will satisfy FLP goals and statutory requirements. Terms will be site specific and will provide for the permanent protection of forest resources targeted by the landowner and the donee for protection. All easement acquisitions must follow established federal appraisal standards and state procedures and standards for negotiation, appraisal, title review, survey, stewardship, and other requirements.

### Parcel Eligibility Criteria

According to the Federal legislation (Appendix B), Forest Legacy Areas shall have significant environmental values or shall be threatened by present or future conversion to non-forest uses. Priority will be given to lands that can be:

- 1) effectively protected and managed, and
- 2) which have:
  - important scenic or recreational values;
  - riparian areas;
  - fish and wildlife values, including threatened and endangered species; or
  - other ecological values.

In addition, recent (2001) USDA Forest Service directives related to regional and federal funding Forest Legacy priorities make it clear that candidate tracts must be:

1. **Important** (they contribute in a quantifiable way environmentally and/or economically to the area and State);
2. **Threatened** (there is an urgency to the threat of conversion or loss of conservation value that can be quantified);
3. **Ready** (there is local support for the project, it is known to be able to be completed and the organization has the means and capacity to complete it);
4. **Strategic** (the project is located in an area that enhances previous conservation investments, advances multi-state conservation initiatives, or contains ecological values of national or regional significance).

The parcel eligibility criteria below reflect both USDA Forest Service Program Implementation Guidelines and the State Forest Stewardship Committee's objectives for the FLP. To be eligible for inclusion in Alabama's FLP, private forestland tracts must:

- Be threatened by conversion to non-forest uses.
- Be owned by landowners that are willing and interested in donating or selling conservation easements, reserved interest deeds, or fee title through the FLP.
- Possess at least one environmental value of special concern to the public and the State, such as important fish and wildlife habitat; rare animals, plants or plant communities; biological diversity; riparian habitats; scenic beauty; forest-based recreation opportunities; forest products production capability; or lands which

directly affect water quality and other watershed values.

- Provide for continuity of one or more traditional forest uses.
- Possess environmental values that can be protected and managed effectively through conservation easements or fee simple acquisition at reasonable cost.

When judging whether a tract has environmental values that can be protected and managed efficiently, AFC, the AFSAC, and the FLP Committee should consider:

- The nature of environmental values proposed for protection and whether they can be monitored effectively and economically.
- Whether the tract is likely to become isolated from other areas maintained for important forest resources by development on adjacent tracts.
- Whether the landowner's management objectives are compatible with the protection of resources they propose.
- Whether a land trust, conservancy, public agency, or other appropriate organization has expressed an interest in working with AFC and the landowner to establish and monitor the easement.
- Whether other sources of funding for tract acquisition, easement closing, monitoring, and other associated costs are available.

## Alabama Forest Legacy Areas with Descriptions

The Forest Legacy Program involves the identification of forestlands within Alabama threatened by conversion to non-forest uses. The Forest Legacy Subcommittee, in conjunction with the State Forester, recommends the creation of six Forest Legacy Areas. They are as follows: 1) North, 2) North Central, 3) West Central, 4) Upper Southwest, 5) Lower Southwest, and 6) Southeast. These areas are analogous to the U.S. Forest Service Forest Inventory Areas (Figure 14).



Figure 14. Forest Legacy Areas



### Forest Legacy Area Priority Counties Based on Census Data

2000 Census Bureau population data is used throughout. 1999 and 2000 Forest Inventory Analysis (FIA) data is used for each of the FLAs.

Designation of **Priority Counties** (Figure 15) is based on census data and is intended to aid in weighting the assessment criteria so that all other things being equal, tracts within the more rapidly developing and/or most densely populated counties will receive a scoring advantage. Only the Upper Southwest FLA has no priority counties.

**Priority 1 Counties** (shaded red on map) experienced greater than 20 percent population growth in the past decade and/or have a population density of greater than 150 people per square mile.

**Priority 2 Counties** (shaded orange on map) experienced 10 to 20 percent population growth in the past decade and/or have a population density of 50 to 150 people per square mile.

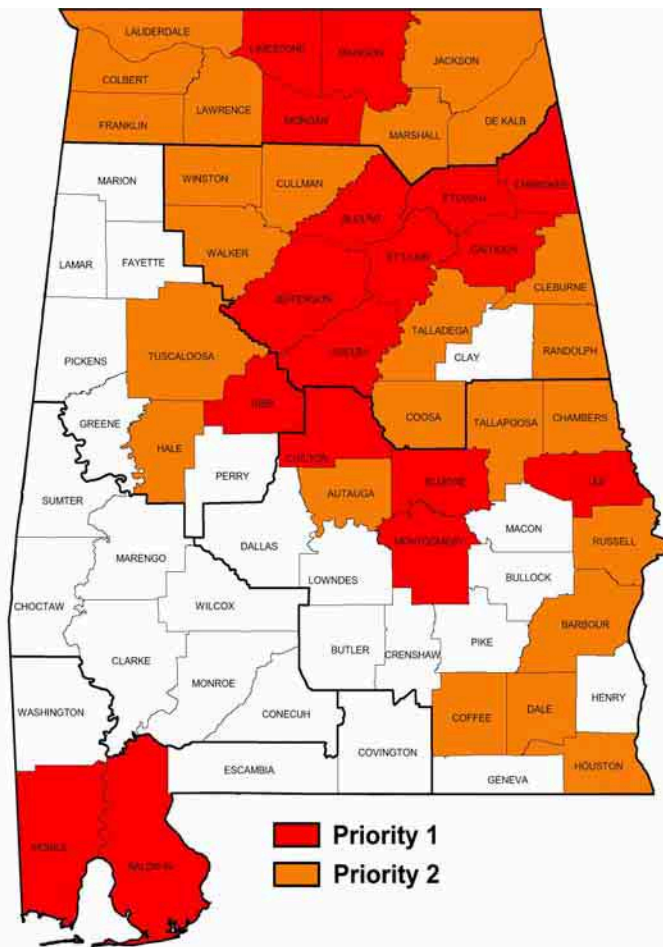


Figure 15. Forest Legacy Program Priority Counties

## Forest Legacy Strategic Focus

Environmentally sensitive forest types in need of special protection within FLAs

### Lower Southwest Forest Legacy Area

Black bear habitat (e.g. Hells Swamp Creek, Sullivan Creek, Bassett Creek), maritime live oak-pine forest (critical fallout habitat for migratory songbirds), longleaf pine forests/flatwoods/savannas and associated wet pitcher plant seeps, dry longleaf pine-oak sandhill woodlands with gopher tortoises and/or other rare species, riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Escatawpa River, Perdido River).



### Upper Southwest Forest Legacy Area

Red Hills and Lime Hills beech-magnolia bluff and ravine forests (including Red Hills salamander habitat), forests associated with coastal plain caves; Black Belt chalk prairie/forest mosaic, riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Conecuh River).



### Southeast Forest Legacy Area

Fall Line Hills longleaf pine forest and associated Alabama canebrake pitcher plant seeps, Red Hills beech-magnolia bluff and ravine forests (including Red Hills salamander habitat), dry longleaf pine-oak sandhill woodlands with gopher tortoises and/or other rare species, limesink pond areas, longleaf pine - wiregrass flatwoods/savannas; riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Pea – Choctawhatchee River).



### West Central Forest Legacy Area

Dolomite glades, Fall Line Hills longleaf pine forests, riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Sipsey River, Cahaba River).



### North Central Forest Legacy Area

Mountain longleaf pine forest, relatively unfragmented blocks of old growth and mature deciduous hardwood forest; Coosa Valley flatwoods and associated prairies; hardwood-pine-cedar forests/woodlands associated with sandstone, granite and limestone glades/outcrops; forests containing caves and karst areas with globally rare species; riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Cahaba River, Locust Fork).



### North Forest Legacy Area

Relatively unfragmented blocks of old growth and mature deciduous hardwood forest, hardwood-pine-cedar forests/woodlands associated with sandstone and limestone glades; forests containing caves and karst areas with globally rare species; riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Paint Rock River, Little River).



## Lower Southwest Forest Legacy Area

Principal Source: Vissage, 1999a

Five counties comprise the Lower Southwest FLA:



<i>County</i>	<i>Population, 2000</i>	<i>% Growth, 1990-2000</i>	<i>Forested Area, 2000 (acres)</i>	<i>Pop. Density (people/sq. mi)</i>
Baldwin	140,415	42.9%	674,200	88.0
Covington	37,631	3.2%	505,800	36.4
Escambia	38,440	8.2%	458,800	40.6
Mobile	399,843	5.6%	531,800	324.3
Washington	18,097	8.4%	610,200	16.7

FLA Priority I Counties: Baldwin, Mobile

FLA Priority II Counties: None

2000 Population: 636,426

Forest Area: Timberland area has increased 1 percent since 1990 to 2.78 million acres. Timberland covers 74 percent of the land area of this FLA.

Forest Area Cleared for Agriculture and Development, 1990-1999: 48,000 acres.

<u>Timberland Ownership:</u>	<i>1999 Acres</i>	<i>Percent of total</i>	<i>Change since 1990</i>
Non-industrial private forest (NIPF)	2,130,000	77 %	+ 21%
Forest Industry	482,000	17 %	- 43%
Public Agencies	162,00	6 %	N/A

Strategic Focus Areas: Black bear habitat in Mobile and Washington counties (e.g. watersheds of Hell's Swamp, Cedar, Armstrong, and Bassett creeks, Paul's Bayou, Bayou Sara and similar tributaries to the Mobile-Tensaw delta), maritime live oak-pine forest (critical fallout habitat for migratory songbirds), river bluff forest along the Mobile-Tensaw delta, longleaf pine forests/flatwoods/savannas and associated wet pitcher plant seeps, dry longleaf pine-scrub oak sandhill woodlands supporting gopher tortoises and/or other rare species, Atlantic white cedar swamps (e.g. Blackwater and Styx rivers, Big Escambia Creek), and riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Escatawpa River, Perdido).

Public Lands: Conecuh National Forest, Bon Secour NWR, Grand Bay NWR, Weeks Bay National Estuarine Preserve, Gulf SP, Florida SP, Frank Jackson SP, Meaher SP, Baldwin SF, George Washington SF, Little River SF, Panther Creek SF.

Threats: Urban sprawl from Mobile is impacting areas of north and west Mobile County as well as much of Baldwin County. Coastal development is impacting southern Baldwin County. Proposed toll roads and hurricane evacuation routes threaten additional forested areas.

## Upper Southwest Forest Legacy Area

Principal Source: Vissage, 1999b

Seven counties comprise the Upper Southwest FLA:



<i>County</i>	<i>Population, 2000</i>	<i>% Growth, 1990-2000</i>	<i>Forested Area, 2000 (acres)</i>	<i>Pop. Density (people/sq. mi)</i>
Choctaw	15,922	-0.6%	520,200	17.4
Clarke	27,867	2.3%	724,900	22.5
Conecuh	14,089	0.2%	469,500	16.6
Marengo	22,539	-2.4%	452,400	23.1
Monroe	24,324	1.5%	533,200	23.7
Sumter	14,798	-8.5%	430,800	16.4
Wilcox	13,183	-2.8%	468,400	14.8

FLA Priority I Counties: None

FLA Priority II Counties: None

2000 Population: 134,722

Forest Area: Timberland area has increased 4 percent since 1990 to 3.6 million acres. Timberland covers 83 percent of the land area of this FLA.

Forest Area Cleared for Agriculture and Development, 1990-1999: 27,000 acres.

<u>Timberland Ownership:</u>	<i>1999 Acres</i>	<i>Percent of total</i>	<i>Change since 1990</i>
Non-industrial private forest (NIPF)	2,880,000	80 %	+ 7%
Forest Industry	675,000	19 %	- 40%
Public Agencies	47,000	1 %	N/A

Strategic Focus Areas: Red Hills and Lime Hills beech-magnolia bluff and ravine forests (including Red Hills salamander habitat), forests associated with coastal plain caves; Black Belt chalk prairie/forest mosaic, riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Conecuh River).

Public Lands: Choctaw NWR, USACOE Lands along Alabama and Tombigbee rivers, Bladon Springs SF, Chickasaw SF, Claude D. Kelley SF, Roland Cooper SF.

Threats: Of the six FLAs, this has the highest percentage of forested land, the lowest population density, and the least imminent threat of conversion of forest to non-forest use.

## Southeast Forest Legacy Area

Principal Source: Hartsell, 2002.

Twenty-one counties comprise the Southeast FLA:



<i>County</i>	<i>Population, 2000</i>	<i>% Growth, 1990-2000</i>	<i>Forested Area, 2000 (acres)</i>	<i>Pop. Density (people/sq. mi)</i>
<b>Autauga</b>	43,671	10.1	283,000	73.3
<b>Barbour</b>	29,038	14.2%	450,600	32.8
Bullock	11,714	6.1%	316,500	18.7
Butler	21,399	-2.3%	417,300	27.5
<b>Chambers</b>	36,583	-0.8%	319,200	61.3
<b>Chilton</b>	39,593	22.0%	324,900	57.1
<b>Coffee</b>	43,615	8.4%	301,900	64.2
Crenshaw	13,665	0.2%	321,700	22.4
<b>Dale</b>	49,129	-1.0%	238,200	87.6
Dallas	46,365	-3.7%	421,700	47.3
<b>Elmore</b>	65,874	33.9%	271,700	106.1
Geneva	25,764	9.0%	203,600	44.7
Henry	16,310	6.1%	224,500	29.0
<b>Houston</b>	88,787	9.2%	166,100	153.1
<b>Lee</b>	115,092	32.1%	273,600	189.0
Lowndes	13,473	6.4%	306,300	18.8
Macon	24,105	-3.3%	307,300	39.5
<b>Montgomery</b>	223,510	6.9%	250,600	282.9
Pike	29,605	7.3%	286,000	44.1
<b>Russell</b>	49,756	6.2%	309,400	77.6
<b>Tallapoosa</b>	41,475	6.8%	381,500	57.8

FLA Priority I Counties: Chilton, Elmore, Lee, Montgomery

FLA Priority II Counties: Autauga, Barbour, Chambers, Coffee, Dale, Houston, Russell, Tallapoosa

2000 Population: 1,030,523

Forest Area: Timberland area has increased 8 percent since 1990 to 6.4 million acres.

Forest Area Cleared for Agriculture and Development, 1990-2000: 170,000 acres.

<u>Timberland Ownership:</u>	<i>2000 Acres</i>	<i>Percent of total</i>	<i>Change since 1990</i>
Non-industrial private forest (NIPF)	5,090,000	80%	+10%
Forest Industry	1,100,000	17%	-1%
Public Agencies	185,000	3%	N/A

Strategic Focus Areas: Fall Line Hills longleaf pine forest and associated Alabama canebrake pitcher plant seeps, Red Hills beech-magnolia bluff and ravine forests (including Red Hills salamander habitat), dry longleaf pine-scrub oak sandhill woodlands with gopher tortoises and/or other rare species, limesink pond areas, longleaf pine - wiregrass flatwoods/savannas; riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Pea – Choctawhatchee River).

Public Lands: Eufaula NWR, Horseshoe Bend NMP, Tuskegee NF, Fort Rucker, Maxwell AFB, Gunter AFB, USACOE lands along Alabama, Chattahoochee rivers, Geneva SF, Tuskegee SF, Blue Springs SF, Chattahoochee SF, Chewacla SF, Paul Grist SF, Lakepoint SF, Wind Creek SF

Threats:

Sprawling development, especially near Dothan, Montgomery, Auburn-Opelika; conversion to agriculture



*Forest Legacy Areas continue on following page...*



## West Central Forest Legacy Area

Principal Source: Hartsell and Vissage, 2001a

Nine counties comprise the West Central FLA:



<i>County</i>	<i>Population, 2000</i>	<i>% Growth, 1990-2000</i>	<i>Forested Area, 1999 (acres)</i>	<i>Pop. Density (people/sq. mi)</i>
<b>Bibb</b>	20,826	25.5%	345,500	33.4
Fayette	18,495	3.0%	333,600	29.5
Greene	9,974	-1.8%	284,300	15.4
<b>Hale</b>	17,185	10.9%	263,100	26.7
Lamar	15,904	1.2%	314,600	26.3
Marion	31,214	4.6%	365,900	42.1
Perry	11,861	-7.0%	357,000	16.5
Pickens	20,949	1.2%	480,700	23.8
<b>Tuscaloosa</b>	164,875	9.6%	659,600	124.5

FLA Priority I Counties: Bibb

FLA Priority II Counties: Hale, Tuscaloosa

2000 Population: 313,283

Forest Area: Timberland area has increased 1 percent since 1990 to 3.34 million acres. Timberland covers 78 percent of the land area of this FLA.

Forest Area Cleared for Agriculture and Development, 1990-1999: 84,000 acres.

<u>Timberland Ownership:</u>	<i>1999 Acres</i>	<i>Percent of total</i>	<i>Change since 1990</i>
Non-industrial private forest (NIPF)	2,520,000	74%	+6
Forest Industry	690,000	20%	-15
Public Agencies	190,000	6%	N/A

Strategic Focus Areas: Dolomite glades, Fall Line Hills longleaf pine forests, riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Sipsey River, Cahaba River).

Public Lands: Oakmulgee District, Talladega NF, Bear Creek Development Authority Lands, USACOE lands along Tombigbee, Black Warrior rivers, Lake Lurleen SP.

Threats: Eighty percent of the land diverted from timberland was cleared for urban and related land uses (Hartsell and Vissage 2001). Sprawling development, especially near Tuscaloosa, is the greatest threat.

## North Central Forest Legacy Area

Principal Source: Brown and Sheffield, 2001

Fifteen counties comprise the North Central FLA:



<i>County</i>	<i>Population, 2000</i>	<i>% Growth, 1990-2000</i>	<i>Forested Area, 2000 (acres)</i>	<i>Pop. Density (people/sq. mi)</i>
<b>Blount</b>	51,024	30.0%	236,300	79.0
<b>Calhoun</b>	112,249	-3.3%	252,900	184.6
<b>Cherokee</b>	23,988	22.7%	230,300	43.4
Clay	14,254	7.6%	311,900	23.6
<b>Cleburne</b>	14,123	10.9%	304,400	25.2
<b>Coosa</b>	12,202	10.3%	356,000	18.7
<b>Cullman</b>	77,483	14.6%	229,600	105.0
<b>Etowah</b>	103,459	3.6%	231,000	193.4
<b>Jefferson</b>	662,047	1.6%	439,400	594.8
<b>Randolph</b>	22,380	12.6%	289,500	38.5
<b>Shelby</b>	143,293	44.2%	351,200	180.2
<b>St. Clair</b>	64,742	30.0%	302,400	102.1
<b>Talladega</b>	80,321	8.4%	325,500	108.5
<b>Walker</b>	70,713	4.5%	354,000	89.1
<b>Winston</b>	24,843	12.7%	310,100	40.5

FLA Priority I Counties: Blount, Calhoun, Cherokee, Etowah, Jefferson, Shelby, St. Clair

FLA Priority II Counties: Cleburne, Coosa, Cullman, Randolph, Talladega, Walker, Winston

2000 Population: 1,479,121

Forest Area: Timberland area has increased 4 percent since 1990 to 4.5 million acres.

Forest Area Cleared for Agriculture and Development, 1990-1999: 259,000 acres.

<u>Timberland Ownership:</u>	<u>1999 Acres</u>	<u>Percent of total</u>	<u>Change since 1990</u>
Non-industrial private forest (NIPF)	3,400,000	76 %	+10%
Forest Industry	662,000	14%	-16%
Public Agencies	435,000	10%	N/A

Strategic Focus Areas: Mountain longleaf pine forest, relatively unfragmented blocks of old growth and mature deciduous hardwood forest; Coosa Valley flatwoods and associated prairies; hardwood-pine-cedar forests/woodlands associated with sandstone, granite and limestone glades/outcrops; hemlock ravine forests; forests containing caves and karst areas with globally rare species; riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Cahaba River, Locust Fork).

Public Lands: Bankhead NF, Talladega NF (Shoal Creek, Oakmulgee districts), Watercross Darter NWR, Little River Canyon NM, Anniston Army Depot, Fort McClellan (closed), Choccolocco SF, Weogufka SF, Cheaha SP, Oak Mountain SP, Rickwood Caverns SP.

Threats: This is a densely populated and rapidly growing region of Alabama. Of the 15 counties, only Clay County has less than 10 percent growth *and* a density of less than 50 people per square mile (23.6).

## North Forest Legacy Area

Principal Source: Hartsell and Vissage, 2001b

Ten counties comprise the North FLA:



<i>County</i>	<i>Population, 2000</i>	<i>% Growth, 1990-2000</i>	<i>Forested Area, 1999(acres)</i>	<i>Pop. Density (people/sq. mi)</i>
<b>Colbert</b>	54,984	6.4%	227,200	92.4
<b>DeKalb</b>	64,452	17.9%	241,800	82.8
<b>Franklin</b>	31,223	12.3%	296,500	49.1
<b>Jackson</b>	53,926	12.8%	451,000	50.0
<b>Lauderdale</b>	87,966	10.4%	202,000	131.5
<b>Lawrence</b>	34,803	10.4%	218,100	50.2
<b>Limestone</b>	65,676	21.3%	109,600	115.6
<b>Madison</b>	276,700	15.8%	180,900	343.7
<b>Marshall</b>	82,231	16.1%	177,400	145.0
<b>Morgan</b>	111,064	11.0%	175,700	190.8

FLA Priority I Counties: Limestone, Madison, Morgan

FLA Priority II Counties: Colbert, DeKalb, Franklin, Jackson, Lauderdale, Lawrence, Marshall

2000 Population: 865,025

Forest Area: Timberland area has increased 8 percent since 1990 to 2.3 million acres.

Forest Area Cleared for Agriculture and Development, 1990-1999: 95,200 acres.

<u>Timberland Ownership:</u>	<i>1999 Acres</i>	<i>Percent of total</i>	<i>Change since 1990</i>
Non-industrial private forest (NIPF)	1,814,200	80 %	+ 14 %
Forest Industry	133,700	8 %	+ 7 %
Public Agencies	244,900	11 %	N/A

Strategic Focus Areas: Relatively unfragmented blocks of old growth and mature deciduous hardwood forest, hardwood-pine-cedar forests/woodlands associated with sandstone and limestone glades; forests containing caves and karst areas with globally rare species; riparian corridors and associated forested wetlands along ecoregional priority river/stream reaches (e.g. Paint Rock River, Little River).

Public Lands: Bear Creek Development Authority Lands, Russell Cave NM, Natchez Trace, Wheeler NWR, Blowing Wind NWR, Fern Cave NWR, TVA lands along Tennessee River, Buck's Pocket SP, Cathedral Caverns SP, DeSoto SP, Joe Wheeler SP, Lake Guntersville SP.

Threats: Sprawling development, especially near Huntsville, Decatur, Tuscumbia, Muscle Shoals; conversion to agriculture.

## Literature Cited

- Association for Biodiversity Information. 2001. Natureserve: An Online Encyclopedia Of Life [web application]. Version 1.4 . Arlington, Virginia, USA. Available: <http://www.natureserve.org/>. (Accessed: June 15, 2001).
- Best, Constance and Laurie A. Wayburn. 2001. *America's Private Forests: Status and Stewardship*. Pacific Forest Trust, Inc., Island Press.
- Brown, Mark J.; Sheffield, Raymond M. 2001. Forest Statistics for North-Central Alabama, 2000. Resour. Bull. SRS-63. U.S. Department of Agriculture, Forest Service, Southern Research Station Asheville, NC. 53 pp.
- Burdette, Don. 1995. The Southern Forests: 1800-1850. *Alabama TREASURED Forests* 3(1):22-23.
- Cordell, Ken. and C. Overdeest. 2001. *Footprints in the Land: An Assessment of Demographic Trends and the Future of Natural Resources in the United States*. Sagamore Publishing, Champaign, Illinois
- Foreman, J. Michael. 1996. *Forest Fragmentation in Virginia: Lessons Learned from Southern New England*. Virginia Forest Resource Assessment, Phase 2. October 1999.
- Gosse, Philip Henry. 1859. *Letters from Alabama, Chiefly Relating to Natural History*. Morgan and Chase, London. 306 pp.
- Hartsell, Andrew J. 2002. Forest Statistics for Southeast Alabama, 2000. USDA Forest Service Resource Bulletin SRS-66. U.S. Department of Agriculture, Forest Service, Southern Research Station Asheville, NC. 59 pp.
- Hartsell, Andrew J.; Vissage, John S. 2001a. Forest Statistics for West-Central Alabama, 2000. USDA Forest Service Resource Bulletin SRS-60. U.S. Department of Agriculture, Forest Service, Southern Research Station Asheville, NC
- Hartsell, Andrew J.; Vissage, John S. 2001b. Forest Statistics for North Alabama, 2000. USDA Forest Service Resource Bulletin SRS-64. U.S. Department of Agriculture, Forest Service, Southern Research Station Asheville, NC
- Hartsell, Andrew J. and Mark J. Brown. 2002. Forest Statistics for Alabama, 2000. USDA Forest Service Resource Bulletin SRS-67. U.S. Department of Agriculture, Forest Service, Southern Research Station Asheville, NC.
- McWilliams, William H. 1991. Changes in the Character of Alabama's Forest Resource. Pages 26-62 *In* Jones, Robert (ed.), *Alabama's Forest Resources: Past, Present, and Future*. Alabama Forest Resources Center.

- Noss, Reed F., and Robert L. Peters. 1995. *Endangered Ecosystems: A Status Report on America's Vanishing Habitat and Wildlife*. Washington, D.C. Defenders of Wildlife.
- Vissage, John S. 2001a. Forest Statistics for Southwest-North Alabama, 1999. USDA Forest Service Resource Bulletin SRS-56. U.S. Department of Agriculture, Forest Service, Southern Research Station Asheville, NC
- Vissage, John S. 2001b. Forest Statistics for Southwest-South Alabama, 1999. USDA Forest Service Resource Bulletin SRS-55. U.S. Department of Agriculture, Forest Service, Southern Research Station Asheville, NC
- Vissage, John S. and Patrick E. Miller. 1990. Forest Statistics for Alabama Counties - 1990. USDA Forest Service Resource Bulletin SO-158.
- Wear, David N., Rei Liu, J. Michael Foreman, and Raymond M. Sheffield. 1999. The Effects of Population Growth on Timber Management and Inventories in Virginia. *Forest Ecology and Management* 118(199):107-115.
- Wear, David N., Robert Abt. and Robert Mangold. 1998. People, Space, and Time: Factors that Will Govern Sustainability. In *Proceedings of the 63<sup>rd</sup> North American Wildlife and Natural Resources Conference*.



Appendix A. Governor's Letter to U.S. Forest Service

OFFICE OF THE GOVERNOR

DON SIEGELMAN  
GOVERNOR



STATE OF ALABAMA

June 12, 2000

STATE CAPITOL  
600 DEXTER AVENUE, ROOM N-104  
MONTGOMERY, ALABAMA 36130

(334) 242-7100  
FAX: (334) 242-0937

Dr. Michael P. Dombek  
Chief, USDA Forest Service  
14<sup>th</sup> and Independence, Southwest  
Post Office Box 96090  
Washington, D.C. 20090-6090

Dear Michael:

As governor of the state of Alabama, I am pleased to inform you of Alabama's desire to participate in the Forest Legacy Program. This is an exciting forest conservation initiative, and our state welcomes the opportunity to serve as a project area.

To facilitate Alabama's participation, I am designating the Alabama Forestry Commission as the lead agency for the program, as authorized under Section 1217 of Title XII of the Food Agriculture, Conservation and Trade Act of 1990 (P.L. 101-624) as amended by the Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127). Further, I am designating the Alabama Department of Conservation and Natural Resources to hold in its Lands Division the land or interests in land that will be acquired under this program. The Department of Conservation and Natural Resources already holds land acquired under the Alabama Forever Wild Land Acquisition Program and conservation easements donated to the state.

As you know, the Alabama Forestry Commission is charged with all matters relating to forestry in the state, and it leads the State Forest Stewardship Program, which will provide direction and public input for the Forest Legacy Program. With approval of the Alabama Forest Stewardship Committee, the commission is contracting with the Alabama Forest Resources Center, a nonprofit land trust organization that deals with conservation easements on working forests in Alabama, to administer the Forest Legacy Program. The center will work directly with the Alabama Forest Stewardship Committee to develop the state assessment of need and perform other program activities.

I am delighted that Alabama is being considered as a project area for the Forest Legacy Program and am confident that this program will enhance forest conservation in Alabama.

With best regards, I am ...

Sincerely,

Don Siegelman  
Governor

DS/sb/mc

**COPY**

PRINTED ON RECYCLED PAPER



## Appendix B. Forest Legacy Law

Excerpt from Title XII – State and Private Forestry Forest Stewardship Act of 1990  
Section 1217 – Forest Legacy Program

### SEC. 1217 FOREST LEGACY PROGRAM.

The Act (16 U.S.C. 2101 et seq.) is amended by inserting after section 6 (as added by section 1216 of this Act) the following new section:

#### SEC. 7. FOREST LEGACY PROGRAM.

(a) ESTABLISHMENT AND PURPOSE- The Secretary shall establish a program, to be known as the Forest Legacy Program, in cooperation with appropriate State, regional, and other units of government for the purposes of ascertaining and protecting environmentally important forest areas that are threatened by conversion to nonforest uses and, through the use of conservation easements and other mechanisms, for promoting forest land protection and other conservation opportunities. Such purposes shall also include the protection of important scenic, cultural, fish, wildlife, and recreational resources, riparian areas, and other ecological values.

(b) STATE AND REGIONAL FOREST LEGACY PROGRAMS- The Secretary shall exercise the authority under subsection (a) in conjunction with State or regional programs that the Secretary deems consistent with this section.

(c) INTERESTS IN LAND- In addition to the authorities granted under section 6 of the Act of March 1, 1911 (16 U.S.C. 515), and section 11(a) of the Department of Agriculture Organic Act of 1956 (7 U.S.C. 428a(a)), the Secretary may acquire from willing landowners lands and interests therein, including conservation easements and rights of public access, for Forest Legacy Program purposes. The Secretary shall not acquire conservation easements with title held in common ownership with any other entity.

(d) IMPLEMENTATION-

(1) IN GENERAL- Lands and interests therein acquired under subsection (c) may be held in perpetuity for program and easement administration purposes as the Secretary may provide. In administering lands and interests therein under the program, the Secretary shall identify the environmental values to be protected by entry of the lands into the program, management activities which are planned and the manner in which they may affect the values identified, and obtain from the landowner other information determined appropriate for administration and management purposes.

(2) INITIAL PROGRAMS- Not later than 1 year after the date of enactment of this section, the Secretary shall establish a regional program in furtherance of the Northern Forest Lands Study in the States of New York, New Hampshire, Vermont, and Maine under Public Law 100-446. The Secretary shall establish additional programs in each of the Northeast, Midwest, South, and Western regions of the United States, and the Pacific Northwest (including the State of Washington), on the preparation of an assessment of the need for such programs.

(e) ELIGIBILITY- Within 1 year from the date of enactment of this section and in consultation with State Forest Stewardship Advisory Committees established under section 15(b) and similar regional organizations, the Secretary shall establish eligibility criteria for the designation of forest areas from which lands may be entered into the Forest Legacy Program and subsequently select such appropriate areas. To be eligible, such areas shall have significant environmental values or shall be threatened by present or future conversion to nonforest uses. Of land proposed to be included in the Forest Legacy Program, the Secretary shall give priority to lands which can be effectively protected and managed, and which have important scenic or recreational values; riparian areas; fish and wildlife values, including threatened and endangered species; or other ecological values.

(f) APPLICATION- For areas included in the Forest Legacy Program, an owner of lands or interests in lands who wishes to participate may prepare and submit an application at such time in such form and containing such information as the Secretary may prescribe. The Secretary shall give reasonable advance notice for the submission of all applications to the State forester, equivalent State official, or other appropriate State or regional natural resource management agency. If applications exceed the ability of the Secretary to fund them, priority shall be given to those forest areas having the greatest need for protection pursuant to the criteria described in subsection (d).

(g) STATE CONSENT- Where a State has not approved the acquisition of land under section 6 of the Act of March 1, 1911 (16 U.S.C. 515), the Secretary shall not acquire lands or interests therein under authority granted by this section outside an area of that State designated as a part of a program established under subsection (b).

(h) FOREST MANAGEMENT ACTIVITIES-

(1) IN GENERAL- Conservation easements or deed reservations acquired or reserved pursuant to this section may allow forest management activities, including timber management, on areas entered in the Forest Legacy Program insofar as the Secretary deems such activities consistent with the purposes of this section.

(2) ASSIGNMENT OF RESPONSIBILITIES- For Forest Legacy Program areas, the Secretary may delegate or assign management and enforcement responsibilities over federally owned lands and interests in lands only to another governmental entity.

(i) DUTIES OF OWNERS- Under the terms of a conservation easement or other property interest acquired under subsection (b), the landowner shall be required to manage property in a manner that is consistent with the purposes for which the land was entered in the Forest Legacy Program and shall not convert such property to other uses. Hunting, fishing, hiking, and similar recreational uses shall not be considered inconsistent with the purposes of this program.

(j) COMPENSATION AND COST SHARING-

(1) COMPENSATION- The Secretary shall pay the fair market value of any property interest acquired under this section. Payments under this section shall be in accordance with Federal appraisal and acquisition standards and procedures.

(2) COST SHARING- In accordance with terms and conditions that the Secretary shall prescribe, costs for the acquisition of lands or interests therein or project costs shall be shared among participating entities including regional organizations, State and other governmental units, landowners, corporations, or private organizations. Such costs may include, but are not limited to, those associated with planning, administration, property acquisition, and property management. To the extent practicable, the Federal share of total program costs shall not exceed 75 percent, including any in-kind contribution.

(k) EASEMENTS-

(1) RESERVED INTEREST DEEDS- As used in this section, the term 'conservation easement' includes an easement utilizing a reserved interest deed where the grantee acquires all rights, title, and interests in a property, except those rights, title, and interests that may run with the land that are expressly reserved by a grantor.

(2) PROHIBITIONS ON LIMITATIONS- Notwithstanding any provision of State law, no conservation easement held by the United States or its successors or assigns under this section shall be limited in duration or scope or be defensible by--

(A) the conservation easement being in gross or appurtenant;

(B) the management of the conservation easement having been delegated or assigned to a non-Federal entity;

(C) any requirement under State law for re-recording or renewal of the easement; or

(D) any future disestablishment of a Forest Legacy Program area or other Federal project for which the conservation easement was originally acquired.

(3) CONSTRUCTION- Notwithstanding any provision of State law, conservation easements shall be construed to effect the Federal purposes for which they were acquired and, in interpreting their terms, there shall be no presumption favoring the conservation easement holder or fee owner.

(l) APPROPRIATION- There are authorized to be appropriated such sums as may be necessary to carry out this section.

Federal Agriculture Improvement and Reform Act of 1996 Title III – Conservation  
Subtitle G – Forestry

**Sec. 374 Optional State Grants for Forest Legacy Program**

Section 7 of the Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2103c) is amended

- (1) by redesignation subsection (l) as subsection (m); and
- (2) by inserting after subsection (k) the following:

**(l) OPTIONAL STATE GRANTS.-**

- (1) IN GENERAL.** – The Secretary shall, at the request of a participating State, provide a grant to the State to carry out the Forest Legacy program in the State.
- (2) ADMINISTRATION.** – If a State elects to receive a grant under this subsection-
  - (A) the Secretary shall use a portion of the funds made available under subsection (m), as determined by the Secretary, to provide a grant to the State; and
  - (B) the State shall use the grant to carry out the Forest Legacy Program in the State, including the acquisition by the State of lands and interests in lands.

The new subsection (m), formerly subsection (l), reads as follows:

**(m) APPROPRIATIONS.** – There are authorized to be appropriated such sums as may be necessary to carry out this section.



## Appendix C. Public Comment Process and Results

As part of the Forest Legacy Program (FLP), and as listed in Forest Legacy Guidelines, the public has a role in determining how the Forest Legacy program will be developed and what criteria will be used to prioritize those tracts that receive consideration. PRECEDA Education & Training was selected to provide assistance to the Alabama Forest Resources Center (AFRC) in developing a meaningful public involvement process for the Alabama Forest Legacy Program.

A key component of this process was the establishment by AFRC of a "FLP Steering Committee" composed of representatives from major stakeholder interests. The Steering Committee not only provide invaluable feedback and oversight of the development of the Assessment of Need, but also utilized their respective stakeholder networks to disseminate information about the AON and the public participation process and solicit feedback on the AON.

The goals for the Alabama public involvement process were twofold: (1) to provide information to stakeholders and the general public about the Forest Legacy Program, and (2) to elicit any concerns, suggestions, and general comments about Forest Legacy.

### **Public Involvement Process**

AFRC contracted with PRECEDA to implement the public participation process in order to take advantage of the extensive network of contacts available to them throughout the natural resource community. (In 2001, PRECEDA will conduct over 80 workshops, seminars, symposiums throughout the South for foresters, forest landowners, wildlife biologists, other natural resource professionals, accountants, attorneys, government officials and others who have an interest or stake in the management of forest resources. The company's extensive mailing list of more than 70,000 names and their electronic mailing list of over 10,000 names provided immediate access to a targeted group of stakeholders.) In addition to access to PRECEDA's extensive mailing list, the company also provided additional "exposure" on workshop brochures and announcements as well as on the company's website. The members of the FLP Steering Committee utilized their own network of contacts, newsletters, etc to promote the public participation process.

### **Meeting Locations and Design**

A survey of other states' FLP Public Participation Processes was conducted to determine the approach taken and how well it worked. In addition, participation processes for similar projects were evaluated. Several options emerged including, one large public meeting in a central location, regional meetings, and smaller invitation-only Focus Groups. PRECEDA and AFRC evaluated each approach against the objectives for the FLP Public Participation Process. Both the single public meeting (*as often practiced by the Alabama State Legislature*) and smaller, invitation-only Focus Groups would not provide sufficient opportunity for broad participation. Regional meetings were problematic due to the hardship that participants might encounter from schedule conflicts, time away from work / family, travel cost, etc., but they were still considered to be the best alternative.

The decision was made to create multiple opportunities for obtaining information and providing feedback. The public participation process developed for Alabama consisted of the following components with objectives listed:

### **Regional Meetings**

Description: Regional/Public Discussion meetings followed a "focused public discussion" format. This was a hybrid between a focus group approach and a larger public meeting.

Objectives: The objectives for these regional meetings were four-fold: to provide information to attendees about FLP, to answer any questions, to solicit verbal comments and feedback, and solicit written feedback to specific questions.

Schedule: Six meetings were held, one in each of the proposed Forest Legacy Areas (FLAs). The meetings lasted approximately 2.5 hours and followed a similar agenda at each location:

<i>Date</i>	<i>Meeting Place</i>
August 13, 2001	Huntsville: Technology Hall, University of Alabama--Huntsville
August 14, 2001	Tuscaloosa: Bidgood Hall, University of Alabama
August 15, 2001	Mobile: Harrigan Learning Center, University of Mobile
August 20, 2001	Birmingham: Jefferson State Community College
August 21, 2001	Troy: Troy State Arboretum
August 22, 2001	Thomasville: Alabama Southern Community College

Promotion: These meetings were publicized using all of the following methods: Direct mailing of meeting announcement to over 5100 people from lists targeting foresters and other forestry professionals, wildlife biologists, other natural resource professionals, foresters, large and small forest products companies, forest landowners, loggers, accountants and attorneys with an interest in forest resource management, as well as other interested stakeholders.

Distribution of electronic copies of the meeting announcements were sent to over 1500 people, including forestry professionals, wildlife biologists, forest products companies, and a wide variety of environmental groups and organizations.

Announcements of the FLP and referral to program schedules found on PRECEDA's website were included in mailings of over 12,000 brochures for workshops targeting a variety of forestry stakeholders.

Newspaper advertisements announcing the regional meetings were placed in all of Alabama's major markets, including Huntsville, Tuscaloosa, Birmingham, Montgomery, and Mobile.

Press releases were sent to newspapers in all of Alabama's major markets (listed above). In some cases, the papers included the meetings on the "community calendar".

In addition, the Birmingham News covered one meeting and wrote an article that provided further exposure.

Forest landowner organizations were contacted, informed, and encouraged to include announcements of meeting locations/times to their memberships.

### **Written Surveys**

Description: A 4-page written survey was developed (following pages) that provided background information about FLP and the draft AON and then requested responses to specific questions.

Distribution: Written surveys were used at each of the regional meetings to obtain the written feedback. In addition, surveys were mailed to over 3,000 stakeholders from lists provided by PRECEDA. This mailing went to a broad group of forest stakeholders including foresters and other forestry professionals, wildlife biologists, other natural resource professionals, large and small forest products companies, forest landowners, loggers, accountants and attorneys with an interest in forest resource management, as well as other interested stakeholders.

### **Electronic Surveys**

Description: The AON was posted on PRECEDA's website ([www.preceda.com](http://www.preceda.com)) and could be downloaded by any interested party. In addition, an electronic copy of the written survey was provided for downloading.

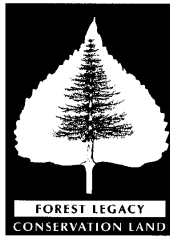
Distribution: The availability of the AON and the survey was communicated utilizing a lists of electronic addresses of a wide variety of stakeholders, including forestry professionals, wildlife biologist, forest products companies, and a wide variety of environmental groups and organizations.

### **Final Review by FLP Steering Committee**

Upon the completion of the 6 regional meetings, PRECEDA compiled the feedback from all of the written and electronic surveys as well as the oral comments from the regional meetings. This information was then forwarded to the AFRC. The Steering Committee then utilized this feedback in the development of the final AON.



## FLP Flyer



# FOREST LEGACY PROGRAM - PUBLIC DISCUSSION

### ***What is the Forest Legacy Program?***

In the 1990 Farm Bill, Congress established the Forest Legacy Program to help landowners, state and local governments, and land trusts to identify and protect environmentally important forestlands that are threatened by present and future conversion to non-forest uses.

### ***Who administers the Forest Legacy Program in Alabama?***

The Governor has appointed the Alabama Forestry Commission as the lead agency who, in consultation with the State Forest Stewardship Committee, has overall responsibility for the program. The Alabama Forest Resources Center will assist the Alabama Forestry Commission in administering the program. The Alabama Department of Conservation and Natural Resources will hold the land or interest in any land acquired.

### ***How does the Forest Legacy Program work?***

The Forest Legacy Program is designed to protect threatened forestland from increasing development pressure by acquiring lands or conservation easements from willing buyers based on fair market value.

### ***What is the current status of the program?***

Alabama will be seeking approval from the US Forest Service to participate in this program later this year. The application process requires Alabama to develop an Assessment of Need document. Part of this Assessment of Need process involves soliciting feedback from interested parties and incorporating this input into the document. Currently, we have a draft Assessment of Need document and are seeking input from interested parties.

### ***How can I find out more?***

For more information about the Forest Legacy Program, visit the US Forest Service website [www.fs.fed.us/spf/coop/flp.htm](http://www.fs.fed.us/spf/coop/flp.htm). To view Alabama's Draft Assessment of Need document, visit PRÉCEDA's website [www.preceda.com](http://www.preceda.com)

### ***How can I participate?***

PRÉCEDA Education & Training will be conducting the public participation process in cooperation with the Alabama Technology Network. There are currently two ways to participate.

#### **PUBLIC DISCUSSIONS**

A series of 6 public discussions have been scheduled around the state and any interested parties are invited to attend.

August 13	2:00 pm - 4:30 pm	Huntsville	Technology Hall - Univ. of Alabama-Huntsville - Room #N140
August 14	2:00 pm - 4:30 pm	Tuscaloosa	249 Bidgood Hall - University of Alabama
August 15	9:00 am - 11:30 am	Mobile	Harrigan Learning Center - University of Mobile
August 20	2:00 pm - 4:30 pm	Birmingham	Jefferson State Manufacturing Center (Jeff. State Comm. College)
August 21	9:00 am - 11:30 am	Troy	Troy State Arboretum
August 22	9:00 am - 11:30 am	Thomasville	WJ Paul Bldg. (teleconference room) (AL Southern Comm. Coll.)

For directions to the facility, please visit our website [www.preceda.com](http://www.preceda.com) or call us at 334.514.3000.

#### **QUESTIONNAIRE**

A convenient questionnaire has been developed to solicit feedback from individual who cannot attend one of the scheduled public discussions. A copy of this questionnaire is available online at [www.preceda.com](http://www.preceda.com) or by calling 334.514.3000.

#### **Invitation to Attend**

We invite you to attend any of the public discussions or provide us your written feedback. We need your input as we develop Alabama's Forest Legacy Program.

**PRÉCEDA™**  
a division of Baseline Forest Services, Inc.





## Forest Legacy Program – Opinion Survey

The Governor has appointed the Alabama Forestry Commission (AFC) as the lead agency for the Forest Legacy Program in Alabama. The AFC, in consultation with the Forest Stewardship Advisory Committee has delegated responsibility for administration of the program to the Alabama Forest Resources Center (AFRC). The AFRC has contracted with PRECEDA Education & Training, a division of Baseline Forest Services, Inc., to conduct a series of Public Discussions across the state, seeking input as the AFRC develops the *Assessment of Need* document required to participate in the program. (For a copy of the *Draft Assessment of Need* document, please visit PRECEDA's website, [www.preceda.com](http://www.preceda.com) and click on the Forest Legacy button or call 334.514.3000 and request a copy. For additional information about the Forest Legacy Program, please visit the US Forest Service website at [www.fs.fed.us/spf/coop/flp.htm](http://www.fs.fed.us/spf/coop/flp.htm).)

This questionnaire is one tool that is being used to collect feedback from those interested individuals who attend the Public Discussions. The questionnaire also presents a convenient method for individuals who cannot attend the Public Discussions to provide feedback.

Please provide us your candid feedback about the *Draft Assessment of Need* or about the Forest Legacy Program in general as it is being implemented in Alabama. This information will be compiled and incorporated into the final *Assessment of Need* document.

### PROGRAM PURPOSE & OBJECTIVES

**The purpose of the Forest Legacy Program (FLP) is to identify and protect environmentally important forestland from conversion to non-forest uses through the use of conservation easements and fee purchases. The following objectives were established under the FLP to achieve the overall goal of protecting environmentally important private forestlands in Alabama threatened by conversion to non-forest uses:**

- **Prevent conversions of forestlands to other uses.**
- **Preserve and protect fish and wildlife habitats, significant natural communities, and biological diversity.**
- **Preserve and protect riparian habitats.**
- **Preserve and protect water quality, fisheries, and water supplies.**
- **Preserve and protect natural beauty.**
- **Preserve and protect forest-based recreation opportunities.**
- **Preserve forestlands for current and future timber production.**

1. Please rank order the most important threats (1=highest;8=lowest) to Alabama's forests that will result in conversion to non-forest uses, which will be used to determine whether a geographic region should be given priority as a Forest Legacy Area.

<b>Important Threats (1=highest;8=lowest)</b>	
_____	Changing pattern of property owners, causing forest fragmentation.
_____	Declining forest health.
_____	Increasing land values.
_____	Land clearing for non-forest uses.
_____	Population growth & residential / commercial development.
_____	Recreational uses & recreational development.
_____	Tax issues.
_____	Wetland conversions.
_____	Other ( <i>please specify</i> _____).
_____	Other ( <i>please specify</i> _____).

2. Please rank order the six geographic areas from the accompanying map in order of greatest potential for Forest Legacy Areas (1=greatest potential;6=lowest potential)

_____	North
_____	North Central
_____	West Central
_____	Southeast
_____	Southwest North
_____	Southwest South



3. Please rank order the six geographic areas from the accompanying map in order of greatest need for Forest Legacy Areas (1=greatest need;6=lowest need)

_____	North
_____	North Central
_____	West Central
_____	Southeast
_____	Southwest North
_____	Southwest South

4. In your local region on the accompanying map, are there areas and/or opportunities of significant potential that should be considered for Forest Legacy Areas? If so, please specify:

---



---

5. In your local region on the accompanying map, what do you think are the two or three leading pressures or reasons why landowners would convert forestland to non-forest uses? Please specify:

---

---

6. Please rank the top 10 criteria that should be used to determine whether a specific tract of land is eligible for Forest Legacy assistance? (1=highest;10=lowest)

_____	The forest provides scenic and aesthetic values.
_____	Development of the parcel would negatively affect adjacent land.
_____	The forest helps prevent further degradation of air quality.
_____	The forest provides important recreational opportunities.
_____	The forest contains a variety of age and size classes.
_____	The forest provides local cultural/economic vitality to rural communities.
_____	The forest is adjacent to another protected area.
_____	The forest provides significant wood products.
_____	Lower population density should be given preference.
_____	Geographical location.
_____	The forest protects and conserves water quality.
_____	The forest is sustainable.
_____	The forest provides and protects habitat.
_____	Minimum parcel size.
_____	Favor conservation easements as the most cost-effective method.
_____	Higher population density given preference.
_____	Other ( <i>please specify</i> _____)
_____	Other ( <i>please specify</i> _____)

**Please complete this survey and return it to:**

**PRECEDA Education & Training  
East Alabama Office  
P.O. Box 410  
Auburn, AL 36831-0410  
334.704.0255 fax**

# Survey Results

## Written Survey Responses

Region	Responses
North	4
North-Central	27
Upper Southwest	17
Lower Southwest	17
West-Central	12
Southeast	40
Undetermined	13
Total	130

### Question 1. Rank in order the most important threats (1= highest; 8=lowest) to Alabama's forest that will result in conversion to non-forest uses.

Overall (combined) response

Threat	Rank
Population growth & residential / commercial development	1
Changing pattern of property owners, causing forest fragmentation	2
Land clearing for non-forest uses	3
Increasing land values	4
Tax issues	5
Recreational use & recreational development	6
Wetland conversions	7
Declining forest health	8

Response by Forest Legacy Area

Threat	North	North Central	Upper SW	Lower SW	SE	West Central	Unknown *
Pop growth / resid / comm. development	1	1	1	1	1	1	1
Changing pattern of property owners	2	2	2	3	2	4	4
Land clearing for non-forest use	3	5	3	2	3	2	3
Increasing land values	4	3	5	4	4	3	2
Tax issues	5	4	4	5	5	5	5
Recreational use & rec. development	8	6	6	7	6	6	6
Wetlands conversion	6	8	7	6	7	7	7
Declining forest health	7	7	8	8	8	8	8

\*Surveys with no address / location noted

Additional Perceived Threats

**North Central FLA**

- Lack of regional planning
- Prices of timber & pulpwood
- Estate / gift tax
- Availability of forest workers
- People moving out of Georgia to lower tax areas
- Environmental groups

**Upper Southwest FLA**

- Declining value of forest products makes investing in forestry less attractive
- Loss of native mixed forests
- Government meddling
- Conversion of longleaf to loblolly

**Lower Southwest FLA**

- Government invasion of non-industrial management
- Government & eco-driven purchase of private land

**Southeast FLA**

- Canadian exports
- Low timber / pulpwood prices

**West Central FLA**

- Impoundments
- Infrastructure developments

**Question 2. Rank in order the six geographic areas from the accompanying map in order of greatest potential for Forest Legacy Areas (1=greatest;6=lowest)**

Forest Legacy Area	Rank
North Central	1
Lower Southwest	2
North	3
Southeast	4
West Central	5
Upper Southwest	6

**Question 3. Rank in order the six geographic areas from the accompanying map in order of greatest need for Forest Legacy Areas (1=greatest; 6= lowest)**

Forest Legacy Area	Rank
North Central	1
Lower Southwest	2
North	3
Southeast	4
West Central	5
Upper Southwest	6



**Question 4. In your local region on the accompanying map, are there areas and/or opportunities of significant potential that should be considered for Forest Legacy Areas?**

---

**North FLA**

- Long Hollow Spring Tract, Colbert County
- Areas along the hill country
- Riparian areas (2)
- Unique geological areas
- Unique areas around towns
- Jackson / Madison Counties
- Byrd Springs wetlands

---

**North Central FLA**

- Long Hollow Spring Tract, Colbert Co
- Around the Cahaba River and its tributaries
- Remnants of Sipsey River gorge liquidated by construction of Smith Dam
- Land adjacent to state or USFS property (2)
- Riparian forest along Cahaba River
- Buffers around Oak Mountain Park
- Recreational railroad rights-of-way
- USX property
- Lake Wedowee shoreline in Clay and Randolph counties
- Weiss Lake in Cherokee County
- Indian Mound Park
- Connect the ecosystem from Little River Canyon through Talladega forests
- Large blocks adjacent to development
- Land near water bodies
- South Cullman, Blount, Walker counties
- North Central property owners are cutting needlessly
- Sipsey River drainage area
- Longleaf pine areas on Ft. McClellan
- State, university, & college lands
- Shoreline of north Colbert County adjacent to Pickwick Lake
- Franklin County surrounding Bear Creek Lakes
- Areas along Hatchet Creek (Clay & Coosa counties)
- Hatchet Creek watershed
- Industry land being sold

---

**Upper Southwest FLA**

- Mobile Bay
- Longleaf pine ecosystem
- Forests that are being clearcut for papermill use
- Mobile -Tensaw delta, Perdido River, Escatawpa River, Weeks Bay watershed
- Gulf Coast areas, delta areas
- Historical sites e.g., salt works in Clarke County
- Coastal / delta
- Monroe County
- Forks of Alabama / Tombigbee in Clarke County
- Red Hills physiographic region
- Large block owned by Hancock on Choctaw / Sumter County line

---

**Lower Southwest FLA**


---

- Industry as it is sold (3)
- Forest land along rivers / streams
- Remaining woodlands along coast
- Longleaf pine ecosystem (3) Baldwin and Mobile County - pine savannas
- Coastal areas & barrier islands
- Longleaf / gopher tortoise / indigo snake areas
- Black bear habitat
- Unique areas
- Water quality areas
- Longleaf virgin stand in Flomaton

---

**Southeast FLA**


---

- Areas adjacent to development (2)
- Longleaf pine ecosystem (2)
- Ft Rucker reservation
- Gulf coastline
- River basins - Pea, Conecuh, Alabama
- Elmore and Lee Counties (2)
- Tallapoosa watershed
- Cahaba River
- Choctawhatchee, Pea, Chattahoochee River watersheds
- Mobile delta
- Adjacent to USFS land
- Hardwood forests that have been ruined by clearcutting and not replanted
- Montgomery, Elmore, Autauga Counties
- Black bear habitat
- Interstate connector in southeast Alabama

---

**West Central FLA**


---

- Tombigbee / Sipsey / Warrior river basins (2)
- Sipsey / Cahaba Rivers & Hurricane creek basins (4)
- North River
- South Sandy Creek Drainage
- Addition to public lands

---

**Other (undetermined)**


---

- Jackson County, northeast corner
- Paint Rock Valley
- Monroe County
- Forks of Alabama/Tombigbee Rivers in Clarke County
- Large Block owned by Hancock on Sumter/Choctaw county line
- Stimpson Wildlife Sanctuary to be used for old growth timber only (no timber cutting)

**Question 5. In your local region, what do you think are the two or three leading pressures or reasons why landowners would convert forestland to non-forest uses?**

---

**North FLA**

---

- Residential / commercial development (3)
- Convert to pasture (2)
- Economics
- People moving into area

---

**North Central FLA**

---

- Return on investment (4)
- Convert to pasture
- Population growth (5)
- Residential / commercial development (10)
- Development around Smith Lake
- Corridor X development (3)
- New owners are changing to non-forest
- Increased land values (2)
- Poor timber prices (4)
- Pine beetles
- Government and public interest group intervention
- Tax issues (2)
- Recreational development
- Lack of regional planning
- Interest in short term monetary gain
- Lack of land management knowledge
- Less cost-share
- Restricted use of roads
- Environmental restrictions

---

**Upper Southwest FLA**

---

- Poor return on timber investment (2)
- Goals of landowner
- Higher profit (6)
- Residential / commercial development
- Harvest & abandon due to shrinking return on investment
- Population growth (3)
- Ownership fragmentation(2)
- Catfish ponds
- Pasture conversion

---

**Lower Southwest FLA**

---

- Low timber value (2)
- Money (2)
- Residential / commercial development (9)
- Wants to change land use
- Change in ownership (4)
- Rising land value (3)
- Public pressure on private property owners
- Population increase (4)
- Latest survey shows 1 million acres added to forest land since last survey
- Recreational use
- Tax issues (4)

---

**Southeast FLA**

---

- Economics (8)
- Cash flow needs (2)
- Residential / commercial development (18)
- Tax issues (11)
- Increasing land values (13)
- Depressed timber prices (3)
- Population growth (4)
- Changing owners (4)
- Conversion to agriculture (2)
- Estate break-up (3)
- Need zoning regulations for rural land
- Wetlands conversion

---

**West Central FLA**

---

- Residential / commercial development (8)
- Increasing land values (4)
- Tax issues (3)
- Population growth and urban sprawl (3)
- Economics (2)

---

**Other (undetermined)**

---

- Cash flow needs (5)
- Residential / commercial development (3)
- Increasing land values (5)
- Recreational use
- Conversion to farming (2)
- Depressed timber prices (2)
- Population growth (3)
- Tax related issues (2)
- Wetland conversion (2)
- Sell land to get rid of responsibility
- Gravel pits
- Easements / roads

**Question 6. Rank the top 10 criteria that should be used to determine whether a specific tract of land is eligible for Forest Legacy assistance (1=highest;10=lowest)**

Overall (combined) response

<b>Criteria</b>	<b>Rank</b>
• The forest protects and conserves water quality	1
• The forest provides and protects habitat	2
• Higher population density if given preference	3
• The forest provides scenic & aesthetic values	4
• The forest is sustainable	5
• The forest provides local cultural/economic vitality to rural communities	6
• The forest provides significant wood products	7
• The forest helps prevent further degradation of air quality	8
• The forest is adjacent to another protected area	9
• Favor conservation easements as the most cost-effective method	10
• Development of the parcel would negatively affect the adjacent land	11
• Geographical location	12
• The forest contains a variety of age and size classes	13
• The forest provides important recreational opportunities	14
• Minimum parcel size	15
• Lower population density should be given preference	16

## Response (Question 6) by Forest Legacy Area

Criteria	North	North Central	Upper SW	Lower SW	SE	West Central	Other*
Water quality	1	1	1	2	3	--	3
Provides / protects habitat	3	4	3	1	2	3	4
Higher population density given preference	2	6	6	8	4	1	--
Scenic & aesthetic values	8	5	--	7	1	2	9
Forest is sustainable	5	3	8	3	8	9	10
Local cultural / economic vitality	--	8	2	9	6	--	5
Significant wood products	6	10	4	--	5	--	1
Prevent degradation of air quality	--	--	9	6	7	10	7
Adjacent to another protected area	9	7	--	5		5	6
Favor conservation easements	--	2	--	4	9	6	--
Affect on adjacent land	--	--	5	--	--	4	--
Geographical location	10	--	7	10	--	--	--
Variety of age & size classes	7	--	--	--	10	7	8
Recreational opportunities	4	9	--	--	--	8	--
Minimum parcel size	--	--	10	--	--	--	2

## Additional Criteria Suggested by Participants

**North Central FLA**

- Areas with no protected land

**Upper Southwest FLA**

- Threatened & endangered species habitat
- Old growth

**Lower Southwest FLA**

- Unique areas

**Southeast FLA**

- Area where forest type is declining

**Other**

- Areas for use in forest education
- Areas with high levels of biodiversity
- Threatened & endangered species

## Appendix D. Alabama Forest Legacy Application Form

Submit by July 15, 2002 for 2002 priority consideration.

The Alabama Forest Legacy Program purchases development rights or fee simple title to environmentally significant forests in targeted areas of Alabama so these threatened forests may remain intact and provide traditional forest benefits.

### Applicant Information

### Authorized Agent for Landowner if Different

Landowner's name:

Agent's name:

\_\_\_\_\_

\_\_\_\_\_

Address:

Address:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone:

Phone:

\_\_\_\_\_

\_\_\_\_\_

Fax/e-mail:

Fax/e-mail:

\_\_\_\_\_

\_\_\_\_\_

List all co-owners of this property:

\_\_\_\_\_

### Property Information

1. Location: County: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section(s): \_\_\_\_\_

2. If in an area covered by zoning, how is property currently zoned? \_\_\_\_\_

3. Total property acres: \_\_\_\_\_ Total forested acres: \_\_\_\_\_

4. How much of the total acres above are you nominating to the Forest Legacy Program?

Forest acres: \_\_\_\_\_ Open or cleared acres: \_\_\_\_\_ Acres of water: \_\_\_\_\_ Total: \_\_\_\_\_

5. I am interested in a: \_\_\_ *conservation easement*, or \_\_\_ *transferring total ownership of the land*

6. Is any of this acreage enrolled in the TREASURE Forest, American Tree Farm System, or other management program? \_\_\_ Yes \_\_\_ No Program: \_\_\_\_\_ Acres covered: \_\_\_\_\_



**Landowner Goals and Objectives**

1. Describe your long-term goals and objectives for the nominated property. It may help to think about the following: Why is the property important to you? Why do you own it? Why did you buy it? What would you like to do on and with this property? What would you like to see happen to this property in the future? You may attach an extra page if needed.
  
2. Do you have a written forest management plan? \_\_\_\_ If yes, please attach a copy. Have you been working with a forester who could provide technical information about your forest? If so, may we contact him/her?

Forester's name and phone number:

\_\_\_\_\_

**Please help us envision the uniqueness of your property. Your comments should correspond to the *Landowner Parcel Scoring* form, which must also accompany this application. You may attach extra pages if needed.**

- A. Type and Level of Conversion Threats (140 points maximum)** There are various kinds and degrees of threat to valuable forested areas, such as encroaching housing development, improved roads, sewer and power line extensions into undeveloped areas and the dividing of land ownership into smaller parcels. Explain how your property is threatened by development or conversion to other uses, or if maintained as forestland, can slow the development pressures in your area.
- B. Parcel contains two or more strategic focus elements identified for its Forest Legacy Area as described on page 44 (100 points maximum).**
- C. Acquirability or Manageability (95 points maximum)** Even if a forested parcel is threatened with conversion to non-forest use, protecting it under the Forest Legacy Program is not always achievable. Describe the level of support for your proposal, other conservation partners involved, and/or how it complements other land conservation efforts.
- D. Watershed Protection: (75 points maximum)** One of the most important "products" of forest areas is water and watershed protection. Explain the water resource values of the proposed property (lakes, streams, wetlands, etc.)
- E. Existing or Potential Public Recreation Opportunities: (30 points maximum)** Public recreation opportunities are defined as those having non-commercial and non-landowner uses. Explain the recreational values (or potential values) of the proposed property.
- F. Landscape Connectivity (45 points maximum).** Describe the proximity of the tract to other environmentally important areas.
- G. Scenic Resources (10 points maximum)** The scenic aspects of a natural resource are often subjective. Describe the special qualities making your parcel stand out as a scenic resource.

- H. Known Cultural or Historic Areas (30 points maximum)** Native American mounds, village sites, and other material evidence of previous human occupation comprise a unique and irreplaceable resource, as do other historic features such as cemeteries, pioneer homesites, old grist and sawmill sites, turpentine trees and pots, etc. Explain the historical values of your parcel.
- I. Opportunities for Traditional Forest Use (50 points maximum)** Traditional forest uses provide timber and other forest products and amenities for an improved quality of life. Explain the traditional forestry values of the parcel (site index, tree species, age, basal area or volume, if known).
- J. Fish and Wildlife Habitat (55 points maximum)** Protecting and enhancing wildlife features on and off the property is crucial to maintaining viable wildlife populations. Explain how your parcel contributes to healthy wildlife habitats.
- K. Rare, Threatened and Endangered Species (80 points maximum)** As urbanization encroaches and subdivision of forest lands continues, the need to give special attention to rare, threatened, and endangered species of fish, wildlife, and plants increases. Explain the rare plants and habitats found on your property that you have knowledge of.
- L. Other Ecological Values (75 points maximum)** In addition to the characteristics already outlined, a parcel may have other exceptional ecological conditions important to the area. Explain the other ecological values or important traits of your property (e.g. geology, proximity to public lands, value as a buffer to other significant areas, corridor value, absence of exotic species, etc.).

- M. Rare, Threatened and Endangered Species (80 points maximum)** As urbanization encroaches and subdivision of forest lands continues, the need to give special attention to rare, threatened, and endangered species of fish, wildlife, and plants increases. Explain the rare plants and habitats found on your property that you have knowledge of.
- N. Other Ecological Values (75 points maximum)** In addition to the characteristics already outlined, a parcel may have other exceptional ecological conditions important to the area. Explain the other ecological values or important traits of your property (e.g. geology, proximity to public lands, value as a buffer to other significant areas, corridor value, absence of exotic species, etc.).

### Landowner Comments

Other comments you may wish to add about your Forest Legacy Nomination or the uniqueness of your property.

**CONFIDENTIAL Financial Information**

The following financial, deed and lien information shall remain confidential until such time as: 1) the application has been approved and all transactions are concluded, or 2) all title holders give written permission to release the information.

**Financial Information**

The following estimates are for preliminary use only. Any final offer for conservation easement purchase cannot exceed fair market value, as determined by an appraisal meeting federal appraisal standards.

- 1) What is the estimated total value of this property? \_\_\_\_\_
- 2) What is the estimated value of the interests (see page 3) proposed to be transferred by conservation easement to the Alabama Forest Legacy Program? \_\_\_\_\_ What is the estimated value for fee simple acquisition? \_\_\_\_\_
- 3) How was this value determined: \_\_\_\_\_ (examples: landowner's personal estimate, licensed appraiser, Realtor, written legal appraisal) Date of the appraisal: \_\_\_\_\_
- 4) Are you willing to donate part of the easement value? \_\_\_\_\_
  - What percent value are you willing to donate? 25% \_\_\_\_\_ 50% \_\_\_\_\_ 75% \_\_\_\_\_ 100% \_\_\_\_\_ Other \_\_\_\_\_
  - What is your approximate asking price for the interests being offered? \_\_\_\_\_

**NOTE: Donations may constitute a charitable contribution for income tax purposes, depending on applicable Internal Revenue Service guidelines and regulations.**

**Comments****Liens and Encumbrances**

Please list any and all liens and encumbrances on the property proposed for enrollment in the Alabama Forest Legacy Program. Examples: Mortgages, utility easements, public rights of way, water flow or water use restrictions, septic systems or water easements, deed restrictions or covenants, mineral extraction rights (gas, oil, coal, sand and gravel, stone, etc.), tax liens, dump sites, underground fuel tanks, other environmental hazards, etc.

**Preliminary Identification of Rights to be Retained and Sold**

*It is important the following section be carefully and fully completed. The information you provide will directly affect the desirability of the parcel, appraised value and its priority as an Alabama Forest Legacy parcel. Please, indicate which of the following uses or interests you wish to **keep** and which uses or interests you wish to **sell** as part of the conservation easement.*

Note: Checking **sell** or **keep** does not commit you to anything at this time, it merely assists the Forest Legacy Committee when inspecting, prioritizing and evaluating your parcel. Also, note that development rights are the basic minimum rights to be conveyed on all Forest Legacy Tracts and therefore are not included on the list below.

<b>KEEP</b>	<b>SELL</b>	<b>UNSURE</b>	<b>Forest use or interest</b>
_____	_____	_____	The right to manage and harvest timber
_____	_____	_____	The right to collect mushroom, herbs, and craft items (e.g. grapevines)
_____	_____	_____	Mineral rights - unrestricted access to minerals (e.g. coal, gravel, etc.) *
_____	_____	_____	Mineral rights - with restricted surface occupancy rights**
_____	_____	_____	Oil and gas rights - unrestricted access with oil and gas*
_____	_____	_____	Oil and gas rights - with restricted surface occupancy rights**
_____	_____	_____	Right to limit or control public access to your property
_____	_____	_____	The right to graze open areas (acres_____)
_____	_____	_____	The right to farm open areas (acres_____)
_____	_____	_____	The right to build or rebuild roads (other than forest management/protection roads)
_____	_____	_____	Ownership of existing buildings and other improvements . Please specify improvements and acres:
_____	_____	_____	I would like to sell or transfer the entire property to the legacy program.
_____	_____	_____	Other. Please specify:_____

\* Retention of unrestricted mineral or oil/gas rights will exclude that portion of your property from consideration in the Alabama Forest Legacy Program.

\*\* Retention of restricted mineral or oil/gas rights which allows less than 10% surface disturbance may be consistent with the Alabama Forest Legacy Program.

**Testimony and Permission**

The information in this application is true to the best of my knowledge and belief. I (we), as the landowner or landowner's authorized agent (proof of authorization must accompany the application) agree to allow inspection, appraisal and survey of my property being offered for consideration under the Alabama Forest Legacy Program. I agree to allow members of the Alabama Department of Conservation and Natural Resources, the Alabama Forestry Commission, the Alabama Forest Legacy committee or their designated staff to inspect my property at any reasonable time for the purposes of this application. I understand I shall be notified in advance of all inspection visits.

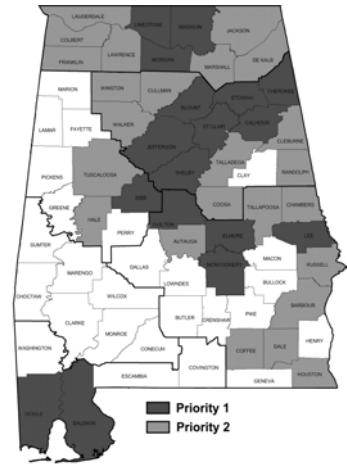
I also understand that this property (i.e. conservation easement or fee simple title) will not be purchased if negotiations do not reach an amicable agreement or if the property does not meet the needs or qualifications of the Alabama Forest Legacy Program. Conservation easements will only be purchased from willing sellers.

<b>Signature(s) of landowner(s) or legal agent</b>	<b>Date</b>	<b>Mail completed application to:</b>
_____	_____	Forest Legacy Coordinator
_____	_____	c/o Alabama Forest Resources Center
_____	_____	169 Dauphin Street, Suite 302
		Mobile, AL 36602
		Questions: 251-433-2372

**2001 Alabama's Forest Legacy Parcel Evaluation --- Landowner Parcel Scoring Sheet**

**A. Threat of Conversion to Non-Forest Use: (140 points maximum)**

- 50 pts Parcel is within a Priority 1 Forest Legacy Area County (see map), or
- 30 pts Parcel is within a Priority 2 Forest Legacy Area County
- 10 pts Public water or sewer systems are within 2 miles of the parcel, or
  - 5 pts Public water or sewer systems currently exist at parcel
- 10 pts At least 50% of site is suitable for development (e.g. soils, slope)
- 10 pts Parcel has more than 5,000 feet of public road frontage, or
  - 5 pts Public road frontage is 1,000-5,000 feet
- 10 pts Parcel is within 25 miles of a city of at least 20,000 people
- 5 pts Parcel is within 25 miles of a town of at least 5,000 people (different city than previous question)
- 10 pts Parcel is within 5 miles of interstate or US or State highway exchange
- 5 pts Parcel contains more than 3,000 board feet/acre of commercial timber
- 10 pts Property natural features likely to attract development (e.g. river, lake)
- 5 pts Property has "improvements" likely to attract development (e.g. quality paved road)
- 5 pts Property is currently listed for sale



Your Score \_\_\_\_\_

**B. Strategic Focus Eligibility (100 points maximum)**

- 100 pts Parcel contains two or more strategic focus elements identified for its Forest Legacy Area (see page 41)
- 75 pts Parcel contains one strategic focus element identified for its Forest Legacy Area

Your Score \_\_\_\_\_

**C. Acquirability and Manageability of Parcel: (95 points maximum)**

- 10 pts Purchase is matched by more than 25% from outside sources
- 15 pts Owner has expressed willingness to sell the land or easement at least 25% below market value, or
  - 10 pts There is written **financial** support from ADCNR, Land Trusts or other conservation groups
- 10 pts Parcel is absent of significant environmental hazards and in good ecological condition
- 5 pts Owner is not reserving or withdrawing any buildings sites from the eligible ownership
- 10 pts Parcel is sufficiently remote from smoke sensitive areas to allow prescribed burning
- 5 pts Current adjoining land uses are compatible with Forest Legacy Program
- 10 pts Owner is willing to protect adjoining open land from development by a conservation easement
- 5 pts Parcel conveys rights in addition to development and surface mineral rights

Your Score \_\_\_\_\_

**Subtotal, this page (A + B) \_\_\_\_\_**

*Note: Parcels with less than a 150 subtotal score at this point may not receive priority consideration.*

**D. Watershed Protection and Water Quality Values: (75 points maximum)**

- 15 pts* Parcel has over 1,000 feet of perennial waterway shoreline, or  
*10 pts* Parcel has 300'-1,000' perennial waterway shoreline, or  
*5 pts* Parcel is situated on a river or perennial stream, but less than 300' frontage
- 5 pts* Parcel includes 100 year floodplain at least 100 feet wide
- 15 pts* Parcel is within a regional drinking water aquifer area or within 1 mile of a public water supply lake, or,  
*10 pts* Parcel drains into a public water supply lake
- 10 pts* Parcel is adjacent to identified permanent watershed protection area or within a priority watershed
- 15 pts* Parcel contains a permanent wetland larger than 2 acres in size or multiple isolated temporary wetlands
- 10 pts* Parcel drains into a natural wetland larger than 2 acres within 1/2 mile
- 5 pts* Parcel complements other federal investments or initiatives (e.g. wetland reserve area, watershed projects)

Your score \_\_\_\_\_

**E. Public Recreational Values: (30 points maximum)**

- 10 pts* Proposed parcel has access to a public water body, or  
*5 pts* Adjoining parcel has water based recreation open to the public
- 10 pts* Proposed parcel has access to a public trail system, or  
*5 pts* Adjoining parcel has trails open to the public
- 10 pts* Proposed parcel has other outdoor recreation opportunities open to the public, or  
*5 pts* Adjoining parcel has other outdoor recreation open to the public

Your Score \_\_\_\_\_

**F. Landscape Connectivity: (45 points maximum)**

- 20 pts* Parcel abuts publicly-owned lands
- 15 pts* Parcel abuts other easement-protected lands or is within 1 mile of publicly owned lands
- 10 pts* Current adjacent land use is compatible with Forest Legacy Program goals

Your Score \_\_\_\_\_

**G. Scenic Resource Values: (10 points maximum)**

- 5 pts* Parcel has frontage on a designated scenic route
- 5 pts* Parcel is part of an important, regionally known scenic view

Your Score \_\_\_\_\_

**H. Cultural or Historical Values: (30 points maximum)**

- 30 pts* Site contains documented historic sites (archaeological sites, cemeteries, pioneer home sites, old grist and sawmill sites, etc.) in good to excellent condition, or  
*15 pts* Site contains one or more documented historic site(s) in fair condition, or  
*5 pts* No historic sites documented, but there is a high probability of significant sites being present

Your Score \_\_\_\_\_

**I. Traditional Forest Values: (50 points maximum)**

- 10 pts* Parcel has been actively and well managed by the current owner, or  
*5 pts* Parcel has an existing forest stewardship plan, but has not been actively managed the past 10 years
- 10 pts* Parcel is enrolled in the TREASURE Forest or Tree Farm program
- 15 pts* Parcel is greater than 320 acres in size
- 5 pts* At least 90% of the easement area is forested
- 10 pts* Parcel has established research plots or educational facilities

Your Score \_\_\_\_\_



**J. Fish and Wildlife Habitat Values: (55 points maximum)**

- 15 pts** Parcel has been prescribed burned on a regular basis
- 10 pts** Parcel has been actively managed for wildlife for at least 5 years
- 15 pts** Parcel is connected to at least 80 acres of other forest and riparian areas
- 15 pts** Parcel entirely contains at least 1 water source (wet at least 3 months of the year).

Your Score \_\_\_\_\_

**K. Endangered Species Values: (80 points maximum)**

- 50 pts** Parcel supports at least 3 rare, threatened or endangered (RTE) species\*, or
- 30 pts** 1-2 RTE species are supported and documented on the parcel, or
- 10 pts** No RTE species have been documented on the parcel, but habitat type is diminishing or has high likelihood of supporting RTE species in a sustainable manner
- 10 pts** Parcel is enrolled in Safe Harbor agreement
- 20 pts** Parcel contains potential rare species habitat and is within 1 mile of an Alabama Heritage Database site for that species

Your Score \_\_\_\_\_

**L. Other Ecological Values: (100 points maximum)**

- 25 pts** Parcel is part of a large contiguous forest block of at least 5,000 acres, or
- 10 pts** Parcel contains more than 3 ecological communities, or
- 5 pts** Parcel contains 2-3 ecological communities
- 25 pts** Parcel contains at least 50 acres that could be economically restored to ecological communities which are dwindling or uncommon in Alabama
- 20 pts** Parcel contains at 10 acres with trees in excess of 75 years old, or
- 30 pts** 40 acres of 75 year old or older trees, or
- 40 pts** 100 acres of 75 year old or older trees
- 10 pts** Invasive and exotic species are relatively uncommon as compared to similar or nearby areas

Your Score \_\_\_\_\_

***Your Parcel's Total Score*** \_\_\_\_\_***Total possible: 800******Note: The final score may not be the sole determining factor.***


---

\* Rare, threatened or endangered (RTE) species include those listed as Threatened or Endangered by the U.S. Fish and Wildlife Service, those designated as rare by the Alabama Department of Conservation and Natural Resources' (ADCNR) State Lands Division Natural Heritage Section, non-game species protected by ADCNR Wildlife and Freshwater Fish Division regulation, and those ranked as S1, S2, or 33 by the Association for Biological Information.